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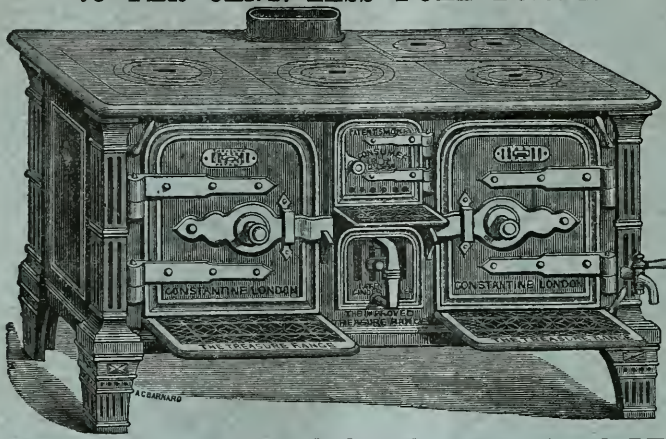

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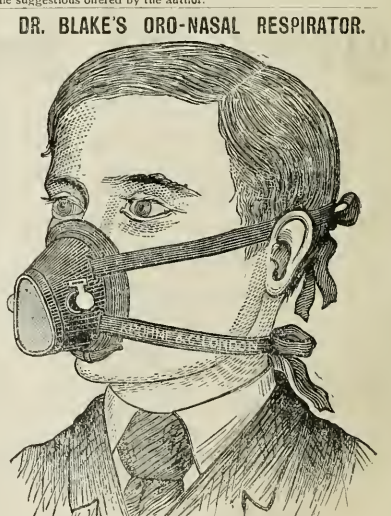

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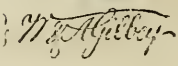

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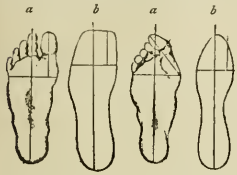

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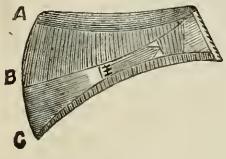

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A reprint from the 'MEDICAL MONTHLY", July, 1881 (Richmond, Va., U.S.A.).

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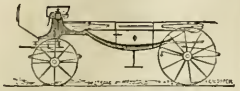

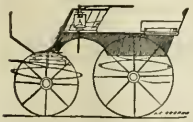
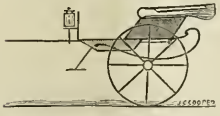

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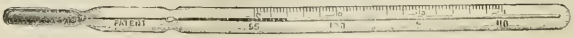

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ON THE PHYSIOLOGICAL ACTION AND THERAPEUTIC USES OF JAMAICA DOGWOOD (PISCIDIA ERYTHRINA).*

THE piscidia erythrina, erythrina piscipula, Jamaica dogwood, or fish-catching coral tree, belongs to the natural order Leguminosæ. It is a native of the West Indies, growing chiefly in arid districts on the mountains of the Antilles. It occurs in great abundance in Jamaica. When full grown, it attains a height of from twenty to twenty-five feet. It has a bright coloured smooth bark, and very irregular spreading branches. The leaves are twice or thrice pinnatifid, somewhat coriaceous, covered with a fine down when young, afterwards becoming glabrous. The part used in medicine is the bark. It is usually met with in commerce in pieces about three inches wide, slightly curved from side to side, and about an eighth of an inch in thickness. It is of a light brown colour, with a slight greenish tinge. The epidermis is covered with flattened protuberances resembling warts, of a lighter colour than the base. When broken, it emits a strong disagreeable odour, not unlike propylamine.

The first mention of piscidia as a medicinal agent occurs in an article by Dr. Barham of Jamaica in the *Hortus Americanus*, published in 1794. Dr. Hamilton of Plymouth published, in the *Pharm. Jour.* of August 1844, a short account of its properties. He had noticed, when resident in the West Indies, the use of the bark of the root by the natives for catching fish, on which, even when of large size, it exerted a very powerful effect. Subsequent writers described the process in detail. Thus, in Loudon's *Encyclopædia of Plants*, published in 1872, it is stated that the bark is pounded up and mixed with the water in some deep and convenient part of a river or creek, whence it may spread. In a few minutes, the fish lying under the rocks or banks rise to the surface, where they float as if dead. The large ones recover after a time, but the smaller fry are destroyed. The eel is not intoxicated by any ordinary dose, though it is evidently affected very sensibly, for the moment the particles spread where it lies, it moves off with great agility. Fish caught in this way are eaten without hesitation, and are not considered unwholesome. Other authorities state that the bark, after being detached from the roots, is mashed up with what is called 'temperlime' and the low wines or lees of the still-house, the mixture being placed in small baskets, from which it is gradually washed out by persons holding them in the water from boats slowly rowed up the river. Dr. Hamilton was induced to try piscidia as an anodyne in toothache, and found that a saturated tincture was very efficacious, not only affording relief when taken internally, but curing the pain when applied locally on lint. The formula he employed in the preparation of the tincture was to macerate an ounce of the bark in coarse powder in four fluid ounces of rectified spirit for twenty-four hours, and then to filter, the dose being a fluid drachm. His first observations were made on himself when suffering from a violent attack of toothache. He took a teaspoonful of the tincture in cold water at bed-time. He immediately felt a violent sensation of heat internally, which rapidly spread all over the body, and was followed by profuse perspiration. He slept profoundly for twenty-four hours, and in the morning awoke refreshed and free from pain.

The chemical composition of piscidia has not as yet been thoroughly investigated, nor has its active principle been isolated.

The physiological action of the drug has been investigated both on rabbits and frogs by Dr. Ott of Philadelphia, but it is difficult, from a perusal of his paper, to ascertain his conclusions. It would appear, however, that he considers—1. That it does not affect the motor nerves; 2. That it reduces reflex action by stimulating Setschenow's centres; 3. That 'it produces a tetanoid state by a stimulant action on the spinal cord, and not by a paralysis of Setschenow's centres;' 4. That 'it increases arterial tension by stimulation of the monarchial vaso-motor centre;' and 5. That this increase of pressure is succeeded by a fall due to a weakening of the heart itself. He states, too, that it dilates the pupil, is a salivator, and increases the secretion of the skin. He adds that 'its surface is pleasure and its depth death'.

The only preparation in use at present is a fluid extract made of the usual strength of the fluid extracts of the *U.S. Pharmacopœia*, each minim representing a grain of the drug. The dose is from half a drachm to two drachms.

It would appear that piscidia has been largely used of late in America, and very satisfactory results are recorded. It affords most relief in facial neuralgia; but it has been given with success in the treatment of obstinate sciatica, chronic rheumatism, and other painful affections. In cases of simple insomnia, it is said to be a valuable remedy.

WILLIAM MURRELL, M.D.

* The *Therapeutic Gazette*, March 1882.

SCHUSTER ON THE EXCRETION OF MERCURY DURING AND AFTER THE USE OF MERCURIALS.

DR. SCHUSTER of Aix-la-Chapelle publishes some interesting investigations, made under his direct observation, upon this subject. Experiments of other observers, viz., Vajda and Paschkis in Vienna, and afterwards Oberländer, have gone to show that mercury may be found in the urine of the majority of cases undergoing mercurial treatment, and especially treatment by inunction. These observers also claim to have discovered the presence of mercury, not only two, three, or six months after the suspension of the treatment, but even after as long as two, five, and twelve years. The method employed consisted of three processes: 1. Separation of the mercury from the fluid containing it by means of some metal (zinc or copper) in a state of extremely fine division, forming an amalgam; 2. Driving off the mercury from this amalgam by means of heat; 3. Conversion of the mercuric vapour into the easily recognisable mercuric iodide. Dr. Schuster now points out that the metal used to form the amalgam has hitherto been the ordinary zinc-dust (zinkstaub*)

* A secondary product in the manufacture of the pure metal. It consists of minute particles of metallic zinc, more or less oxidised, and, at the same time, small quantities of the other metals named, and of cadmium.

of commerce, which contains, besides arsenic and antimony, an alloy of certain other metals. Each of these he submitted to the iodide test, and, in the cases of antimony and arsenic, obtained results which might easily be mistaken for indications of the presence of mercury. To avoid the possibility of this error, he caused a series of experiments to be made, using a preparation of copper and zinc, known as 'lametta', which is free from the admixture of other metals. The experiments were carried out by an experienced analytical chemist, and in a few cases the fæces, as well as the urine, were examined for the presence of mercury. Forty-one cases are recorded which had been under some form of mercurial treatment, in many cases by inunction of ointment, or of mercuric soap, and, in a few, by injection of mercuric cyanide. In some cases, opportunity was given for examination of the urine after long intervals.

The results obtained were as follows. Of fifty-two analyses of urine, thirty-two gave negative and twenty positive results. Of the positive cases, mercury was never found in the urine earlier than from the seventh to the twelfth day after the beginning of the treatment. Ten of the positive results were obtained during the treatment, and ten within three weeks after it. Of the thirty-two negative results, fourteen were obtained during long continued treatment, and eighteen after it. In no single case was any positive result obtained after the sixth month from the suspension of the treatment.

In several of the cases, the fæces as well as the urine were examined, and, without exception, more abundant evidence of the presence of mercury was obtained in them than in the urine; but in the cases investigated one year after the cessation of the treatment, no positive result could be obtained in either.

Although his opportunities of examining the fæces were only few in comparison with the urinary examinations, Dr. Schuster lays stress upon this fact, that, in all the experiments upon fæces, the expected results were obtained; whereas, in the case of the urine, many of the experiments ended in a directly negative result, even in cases where the physiological effects of the mercury were manifest in the patient at the very time when the examined urine was excreted.

He sums up the results of his inquiries thus. 'During mercurial treatment, the mercury appears very soon in the fæces, often to a considerable amount; and this excretion appears to be fairly constant, and lasts even for weeks after the cessation of the treatment. After one year, however, no trace of it appears. The excretion of mercury may take place also in the urine, but, even during the treatment, it is not constant, and may last after its cessation, irregularly, for a long period. It cannot be traced after six months. The retention of mercury in the system for years is, therefore, highly improbable.'

The method employed in the examination of the fæces consisted in deodorising by stirring with bromine, then evaporating to consistence of a thick syrup. This was then treated with a mixture of concentrated nitric and hydrochloric acids (1 to 3), and evaporated over a water-bath until no further smell of acid could be perceived. The residue was then digested in hot water and filtered, the filtrate being tested in the same manner as the urine.

E. CLIFFORD BEALE, M.B.

HUSEMANN ON THE SIGNIFICANCE OF THE PTOMAINES IN TOXICOLOGICAL CHEMISTRY.

TH. HUSEMANN contributes a valuable article on this subject (*Archiv der Pharm.* No. xvi, 1881, p. 415). The formation of ptomaines being frequent in corpses when undergoing slow decomposition, it might be presumed that they would be frequently observed in the bodies of persons who have died from acute arsenical poisoning. Selmi has succeeded in demonstrating that, under these circumstances, peculiar arsenical poisonous bases (arsines) are formed. In 1878 he reported two cases in which poisonous crystalline ptomaines were found in exhumed bodies containing arsenic. The first subject was the body of a person exhumed fourteen days after burial, in a good state of preservation, and containing much arsenic. In the search for alkaloids, a small quantity of an alkaline substance, having a sharp bitter taste, was found. It was crystallisable, yielded crystalline salts, reacted generally as an alkaloid, but gave no precipitate with platinic chloride. It afforded, also, several colour reactions; but the amount of material did not suffice for a complete chemical and physiological examination. Shortly afterwards, Selmi obtained larger quantities of a more easily crystallisable ptomaine from an arsenical corpse exhumed a month after death. This base was alkaline in reaction, and had likewise a sharp bitter taste. Its chemical reactions differed somewhat from those of the previously described alkaloid. It was highly poisonous when administered to a frog. An endeavour to destroy the base, by means of nitro-hydrochloric acid, and then to demonstrate the presence of arsenic, led to no definite result, though several milligrammes of the base were employed for the purpose.

Though in these two ptomaines the presence of arsenic was not proved, Selmi afterwards discovered organic arsenical bases (arsines) in the stomach of a pig which had been preserved in a solution of arsenic. The tissues were not destroyed, and there was no putrescent odour perceptible. The alkaline liquid yielded, on distillation in an atmosphere of hydrogen, an alkaline distillate, which yielded white crystals, with hydrochloric acid. These, when moistened with caustic soda, exhaled an odour somewhat resembling that of trimethylamine. The presence of arsenic was ascertained in the hydrochlorate of this volatile base, which yielded some alkaloidal reactions. Experiments made with 24 milligrammes (0.36 grain) of the substance showed it to be highly poisonous, and that it resembled strychnine in its physiological action.

From the solid matter, a volatile alkaloid was further extracted, but its small quantity prevented an accurate examination from being made. From the residue of the distillation of the ether used in extracting these bases, a third and non-volatile base was obtained, having an alkaline reaction, and of a cadaverous odour. On exposure to air, this base became brown, and insoluble in water. Its hydrochloric solution had an offensive odour and a bitter taste. It caused tingling when placed on the tongue, followed by loss of sensibility. The base yielded alkaloidal reactions, and contained arsenic. It was poisonous to frogs, but its action differed from that of the volatile arsine, and was somewhat similar to that observed as the ordinary action of the poisonous ptomaines. Torpor, paralysis, and stoppage of

the heart in systole, were the most prominent symptoms.

The alleged existence of arsenical ptomaines is highly important, not only to the medical jurist, but as affording a possible explanation of chronic arsenical poisoning produced by arsenical wall-papers. If Selmi be correct in his assertion, that a volatile arsine is produced by the contact of arsenious acid and albuminous substances, possessing a highly poisonous action differing from that of arsenious acid, Husemann thinks it likely that a similar product may be formed from the size employed in affixing the arsenical paper to a room, the moisture of the air playing a part in the formation of the arsine. The writer of this notice is not aware, however, that symptoms resembling strychnine intoxication have been observed as the result of living in rooms covered with arsenical paper.

Selmi's researches may, as Husemann thinks, throw light upon an obscure page in the history of toxicology. It is asserted that the poisoners of the seventeenth and eighteenth centuries, Toffa and other professionals, understood how to render arsenic more potent. In Italy, the *acquetta di Perugia* was, according to tradition, a secret compound prepared by rubbing white arsenic into the flesh of a pig, and collecting the liquid which dripped from the flesh. The liquid, prepared in this way, was thought to be much more poisonous than a simple arsenical solution. It is possible that the activity of the arsenic was increased both by the formation of readily absorbable compounds of arsenic with the inorganic alkalies, and by the formation of arsenical bases. The same object may have been in view in preparing *aqua Toffana* with the addition, as is known, of the juice of the ivy-leaved broad flax (*linaria cymbalaria*). Selmi and Vella are of opinion that, in the *acquetta di Perugia*, the concealment of the action of the arsenic, on the one hand, and also of the tetanising poisons on the other, was accomplished; but this opinion, which is based upon an observation of Vella, in a case of poisoning with arsenic and strychnine, does not accord with observations made on warm-blooded animals with a mixture of potassium arsenite and strychnine, whereby the tetanising action of strychnine was not prevented, provided the alkaloid was given in poisonous doses. THOMAS STEVENSON, M.D.

LUKENS ON OMPHALITIS AND ITS COMPLICATIONS.

DR. ANNA LUKENS, Resident Physician to the Country Branch of the Nursery and Child's Hospital, Staten Island, treats of omphalitis of the new-born, in a paper published in the June number of the *New York Med. Jour. and Obstet. Rev.* After giving an illustrative case, she remarks that the disease is of rare occurrence, but that it is said to occur even during fœtal life, by the movements of the child causing traction upon an unusually short cord, or one that is wound around the body of the fœtus.

As described by Hennig, there are four varieties. 1. In the mild form, the navel is prominent, the surrounding skin is reddened, the abdomen is distended, and, when the abdominal walls are thin, the vein can be felt as a cord extending from the liver to the umbilicus. 2. In the second, or severe form, the navel is infiltrated, and surrounded by a reddish-blue circle. Erysipelas frequently occurs, and extends over the abdomen and the lower extremities. There is greater distension of the abdomen, even when peritonitis does not occur, than in the mild form. The urine is sometimes bloody or icteric. The stools are greenish or bloody. Movements of the inflamed navel are painful, and may cause convulsions or trismus. Recovery is rare in the severe cases, but may occur after the disease has continued two or three weeks. 3. The third variety is the croupous or diphtheritic. The peritoneum behind is usually involved in the inflammation, and frequently the contiguous coil of intestine. 4. The fourth variety consists of an inflammation of the tissues surrounding the umbilical vessels within the abdominal cavity, and often accompanies puerperal disease. It is usually limited to the vicinity of the navel, but may extend along the course of the umbilical vein to the capsule of Glisson. Early in the disease the umbilical vessels are not affected, but they subsequently participate in the inflammation, and necrosis may occur from compression by the shrinking exudation. The peritoneum is at first only locally injected; afterwards a yellowish infiltration separates it from the posterior wall of the umbilical fossa.

Omphalitis may occur primarily, or secondarily to other diseases. It is attributed sometimes to anomalies in the closure of the navel, to rough handling, to uncleanliness, to impure air, or to puerperal infection. Peritonitis and thrombosis of the umbilical vessels, with subsequent phlebitis and arteritis, are frequent complications. Umbilical hæmorrhage, icterus, and pyæmia may also occur. Umbilical phlebitis may be produced by purulent matter entering the vessels from the fossa of the umbilicus, also by traction on the cord, or tight bandages; or it may be secondary to omphalitis when non-involution of the umbilical vein exists. Thrombosis sometimes has an intra-uterine origin. Inflammation of the umbilicus, and especially of the outer walls of the umbilical vessels, is an important factor in causing non-involution. Besides other causes, thrombosis may also be due to defective nutrition of the vascular walls themselves, arising from a general septic poisoning, causing pyæmia or septicæmia. Whereas, on the one hand, thrombosis may occur from septic absorption, so, on the other, there may be general septic poisoning after involution of the vessels, when no thrombosis can occur. The infection may be limited by thrombosis *in situ* of the umbilical vein, just as the uterine lymphatic glands may sometimes limit the diffusion of poison in puerperal infection.

The principal danger in thrombosis of the umbilical vessels is the softening and breaking up of the coagulum, with the formation of distant emboli. As the umbilical vein is, of all the blood-vessels peculiar to fœtal life, the first to undergo involution, and is even at birth sometimes found considerably contracted, softened clots can rarely be admitted to the venous blood through the ductus venosus. Even an embolus in the liver is an exceptional occurrence. A coagulum at the entrance of the umbilical vein into the portal vein has been frequently observed, but is believed to be a local thrombosis, and not an embolus. Thrombosis, sometimes, though rarely, extends from the umbilical vein into branches of the portal vein.

In regard to the pathological anatomy of umbilical phlebitis, the vein frequently presents a hard cord-like feeling, the walls being thickened, and often unevenly dilated. The contents may consist of simple disintegrated coagula, or of uniform laudable pus. Sometimes the pus column is separated by cheesy masses. Occasionally a pseudo-membrane is found

lining the vein. The intima and middle coat finally dissolve into a mass of white blood-corpuscles. The liver is sometimes, though rarely, affected. Bednar once found, in umbilical phlebitis, the hepatic vein inflamed, and nearly all its branches filled with pus, which, on section of the liver, flowed out in great quantities. Emboli in the hepatic branches of the portal vein have not been clearly demonstrated. When inflammation of the connective tissue around the umbilical vein extends to the capsule of Glisson, the latter becomes swollen and infiltrated. The inflammation may extend to the hepatic parenchyma, and by compression of the bile-ducts produce mechanical icterus, which assumes, however, the malignant form.

The symptoms of phlebitis are a cyanotic or icteric hue of the surface. Pemphigus-vesicles and hæmorrhagic abscesses are frequent. Gangrene, especially over the sacrum and of the navel, may occur. The purulent contents of the vein can sometimes be pressed out through the umbilical fossa. The umbilicus becomes prominent and indurated. The cord may have fallen, or be still adherent. The inflamed vein can sometimes be felt through the abdominal wall. Next to peritonitis, meningitis is the most frequent complication. Peritonitis may be circumscribed or general. The peritoneal fold surrounding the umbilical vein is often the starting-point of the inflammation. Phlebitis is often only recognised after the appearance of purulent infection. It occurs between the first and twenty-eighth days, most frequently on the seventh. The fatal termination may be either from general septic poisoning, from peritonitis, from embolic infarction and metastatic abscesses, or from thrombosis in important vascular territories. Inflammation of the umbilical arteries may be confined to the seat of the coagulum, the remaining portion of the vessel being contracted, or even closed. The coats of the vessels become swollen and gradually disintegrate, and finally perforation occurs. The adventitia is the seat of the principal changes, which readily extend to the surrounding tissue. Arteritis may occur after the umbilicus is almost or entirely healed, and the latter may afterwards begin to protrude, inflame, and suppurate. Pus can sometimes be pressed out by making pressure upward from the bladder. At times there is retention of urine, with painful micturition and sensitiveness in the region of the bladder. Icterus and peritonitis may occur, but belong more particularly to phlebitis. The contrast between arteritis and phlebitis is striking. Arteritis is rarely accompanied by fever, icterus, or pyæmia, and is almost always cured. Phlebitis has all the above-mentioned complications, and is almost always fatal. Arteritis is rarely a cause of general infection, but pyæmia may occur by purulent matter from the arteries being taken up from the umbilical fossa by the vein. This occurs more easily when the navel has been closed, or healed over; or infectious material could pass, in the opposite direction, into the pelvic blood-vessels, and from these into the general circulation. The neighbouring lymph-vessels can also take up molecular detritus, and carry it into the circulation. Thrombosis of the ductus Botalli has been observed in arteritis, but oftener in phlebitis.

HIRSCHFELDER ON TETANY.

TETANY presents many features of interest, not the least being the comparative rarity of its occurrence. Its exact nature is still matter of discussion, and well-recorded instances possess value. One explanation of the affection refers it to the class of spinal irritations, but its distinctive phenomena give it an individuality of its own. Dr. Hirschfelder communicates some particulars of the disease in the February number of the *Pacific Med. and Surg. Jour.*, founded on observations of a case which had come under his care in private practice. The patient was a man of nervous temperament, who had nevertheless enjoyed good health until February 1880, when he fell with an elevator, sliding down a trap a distance of three stories, and lacerating the palms and fingers of both hands, but especially of the left. No unusual symptoms occurred during the next five days, except slight convulsive movement at night, to which no attention was paid; a severe convulsion, however, set in on the evening of the fifth day, and, being regarded as tetanus, was treated with bromide of potassium. Morphia given subcutaneously only made matters worse; chloral finally checked the condition. Two weeks later, a second attack was again met with chloral, and a depressed nervous state persisted after it. Another severe convulsion occurred shortly before Christmas, chloral again conquering it; but a decayed tooth having been blamed for the mischief, it was extracted. Fresh attacks, apparently causeless, came on in June 1881, since which time the patient has continued nervous and excitable. Dr. Hirschfelder describes the obvious appearances as follows.

'You see, gentlemen, the patient before you looks to be in the best of health, and no one would suspect him to be a victim of the disease present. I press upon the radial nerve, and you see contraction occurring in the palmar muscles supplied. I squeeze the ulnar nerve—the muscles on the ulnar side draw up. I press upon the axillary nerves rather forcibly, and you see the patient stiffens, the arms draw up, the head turns back, opisthotonos and a well-marked tetaniform convulsion ensue. At the same time, the face reddens, and you hear a short hacking cough. I cease to press, and instantly you see the attack passes over, and the patient seems as well as before. I stick him with a pin here upon the arm, and you see the same convulsive movement. I press upon the facial nerve, and the muscles supplied by it twitch. Pressure on the scalp produces no contractions. Our patient is quite a sceptic, and thinks that perhaps by a powerful exertion of his will he might possibly prevent the attack from coming on; but you see now, when firmly determined not to permit the convulsion, he is unable to do so when the axillary nerves are pressed, and the contractions occur as heretofore. He has, however, made a discovery never before noted in a case of tetany, that, if he cause his muscles to become powerfully contracted, as when firmly holding a stick in both hands, the convulsive movements do not occur upon irritation.'

This observation of the patient may not be without some practical result, and may be borne in mind by any who may in the future meet with similar cases. That tetany is distinct from tetanus is shown by the frequency of its attendant phenomena. Painful contractions are present in both forms, but the order in which the parts of the body are attacked is remarkably different. In tetany, the contractions are centripetal, not, as in tetanus, centrifugal, the extremities being first attacked, then the trunk or head; and in less severe forms the seizure is confined to the limbs. The peculiar form assumed by the contracted hand also is apparently a constant sign of tetany, this being like the folding up in a

conical form followed by the obstetrician when about to explore the vagina. Dr. Radcliffe, in Reynolds's *System of Medicine*, questions 'whether a sufficient case is made out in describing tetany as a definite disorder, and whether it is not rather a form of spinal irritation, complicated with some graver spinal disease—spinal meningitis, myelitis, spinal congestion—in varying proportions'; and he arrives at an affirmative conclusion also from the presence in such cases of tingling and numbness, with prolonged contraction, this being, at any rate, a not unfrequent symptom in single spinal irritation. Hyperæmia, moreover, has been mostly noticed in the upper portion of the spinal cord in those rare cases when *post mortem* examinations of persons dying from tetany have been made. Dr. Hirschfelder has the following remarks in relation to causation of the disease.

'Tetany may be produced by a large number of causes. It frequently occurs in epidemiform groups, and seems to be most frequent during the winter months. It occurs most frequently in children and during lactation. In many cases, a connection exists between the tetany and intestinal irritation. Psychic alterations seem to stand in casual relation to it. A number of cases have been observed, immediately following extirpation of goitres. In one such case, the formation of a small abscess occurred, and the tetany persisted until the abscess was opened, when it permanently disappeared. In our case, the tetany occurred after injury; but whether it was produced by the injury or by the fright is very difficult to determine.'

KÖNIG ON RECENT ADVANCES IN THE TREATMENT OF TUBERCULOSIS OF BONE AND JOINTS.

PROFESSOR KÖNIG of Göttingen, in a recently published lecture (Volkmann's *Sammlung Klin. Vort.*, No. 214), has given a sketch of what is now known concerning the pathology of chronic tubercular inflammation in bone and joints, and has described the advances that have been recently made in the direct surgical treatment of such affections. In the preliminary part of this lecture, a brief allusion to the histology of tubercle is followed by a description of the typical condition of things in a case of tuberculous disease of the knee with external suppuration—the so-called cold or congestive abscess, in the lower and outer portions of the thigh. This abscess, the pyogenic membrane of which presents tubercles in its deeper parts, communicates with a fine fistula, which leads into the external condyle of the femur, and terminates there in a small patch of tubercular disease, or passes directly into the diseased joint, the synovial membrane of which is studded with tubercular deposits, the intra-articular cavity being occupied either by pus or by fungoid masses of granulation-tissue. In a case of this kind, it rarely happens that the synovial membrane is the primary seat of the disease. Most frequently the disease spreads to the joint from a morbid deposit within the articular extremity of one of the long bones, the synovial membrane being secondarily affected, or the deposit in the bone increasing in extent, and communicating directly with the interior of the joint.

Tuberculosis in bone manifests itself in two orms, which, though differing very much in appearance, may pass the one into the other, and are linked by intermediate forms of morbid change. The most frequent form is that indicated in macerated specimens by one or more orifices in the affected bone. These orifices, varying very much in size, and of a more or less rounded form, are occupied during life by caseating tubercle and granulation-tissue, mixed with minute spicula of bone. Tubercular granulations cover the lining membrane of this cavity, and extend into the surrounding spongy bone-tissue. In the other extreme form, the bone on section presents no abnormal orifice, but one or more pale yellow patches of softened osseous tissue, which can be readily separated from the surrounding portions of ruddy and healthy bone. This pale and softened patch consists of dead bone, mixed with caseous material and pus, and in less advanced cases presents tubercles; and the boundary between the sequestrum and the surrounding healthy bone consists of granulation-tissue. This passes gradually into the first mentioned form of osseous tuberculosis; the sequestrum, becoming detached from the hard and more healthy bone, is enclosed in caseating tubercular granulations, diminishes rapidly in size, and is finally reduced to a few small osseous spicula. From tubercular foci of this kind, the disease finally extends to the surrounding soft parts, and often to the adjacent articulation. It is held that from such local tubercular disease of bone general tuberculosis may be developed. Many cases have been noted in which these two affections—the one local, the other general—coexisted without any indications in the same patient of pulmonary phthisis, of renal tubercular phthisis, or any like affection.

Osseous tuberculosis, with regard to its clinical features and its pathological anatomy, is a definite and well-characterised affection. Without inquiring as to whether it can be communicated from man to animals and from man to man, it suffices, for surgical purposes, to have the fact recognised that the disease has local infective properties, tending, as it does, to spread from the interior of a bone to the surrounding soft parts, and into the nearest joint. Osseous tubercular disease may also extend to the organism, and finally cause the death of the patient by general infection. It may also be asserted, with regard to this disease of bone, that not even in the most favourable cases can a cure be expected from any therapeutical measure short of surgical operation.

Professor König next alludes to the different stages in the recent considerable advancement in the treatment of chronic tubercular inflammation of bone. For these changes in practice, and for much of our present knowledge as to the pathological anatomy of tubercular disease in bone and in joints, we are mainly indebted to Listerism and to Esmarch's so-called method of bloodless surgery. The first step in this treatment was the removal of risks of putrefaction during the treatment by incision of a cold abscess. Next followed the practicability of thoroughly examining the interior of this abscess after incision, and of tracing its communication with its primary source, namely, a tubercular deposit in an adjacent bone. The removal of the deposit, when this is accessible, formed part of the step in advance. Then followed the practice of exposing and removing the osseous morbid deposit in cases where little, if any, suppuration had occurred. With the help of an efficacious antiseptic process, the surgeon may venture to extirpate such deposit, even though it be necessary in the course of the operation to lay open a large joint. It is stated that, in a well-marked case of well-marked tuberculous

disease of a joint, the surgeon should make it his aim, in any operative treatment, to remove, in the first place, any primary morbid deposit in adjacent bone, and then, after having made out the extent of the disease in the synovial membrane and the articular extremities of the bones, to extirpate just the parts that are diseased. In the surgical treatment of such articular disease, iodoform is believed to be a local and antiseptic agent of much value. Professor König, though confident that such treatment as has been described will in future save many joints that would formerly have been removed by resection or amputation, still acknowledges that the former operation will undoubtedly still have to be resorted to in extensive and advanced articular disease, and that in certain cases, as where the patient is old, and the disease is very severe, it will occasionally be necessary to remove the limb in order to save life.

In discussing the application of this modern surgical treatment to the different forms and complications of articular and osseous tuberculosis, Professor König deals firstly with congestive or cold abscesses. In the most frequent and typical specimens of this affection, however, where the abscess is associated with spinal disease, and is the result of morbid deposit in one or more vertebral bodies, the removal of the primary cause of the suppuration is, of course, out of the question. But, in cases of this kind, surgeons can now open the abscess without risk to the patient, and prevent putrefaction of the pus, and consequent septic poisoning and pyæmia. A large suppurating cavity may now be converted into a scantily secreting fistulous channel; and if this become permanently closed, the surgeon may assume that his action has contributed very much to bring about so satisfactory a result.

The surgeon is able to do much more in cases where the primary tubercular deposit is nearer to the surface of the body, and can be laid bare by the knife. König describes the treatment of a case of large chronic abscess in the back, associated with disease in the spine of the scapula. After thorough disinfection of the surface of the skin over the seat of the disease, the abscess is opened at its most dependent part and emptied of its pus. The inner tuberculous membrane of the sac having been removed by rubbing with carbolised sponge, and by scraping with the finger-nail, or, if it be closely adherent, with a 'sharp spoon', the surgeon looks for the small opening through which the pus had passed into the sac of the abscess, and, when he has found this, introduces a probe, and passes this along the fine sinus, which leads to bare bone in the spine of the scapula. A second incision is now made through the soft parts over the end of the probe, the diseased portion of bone is exposed, and the tuberculous deposit or sequestrum removed by the 'sharp spoon', or by chisel and hammer. The surgeon, after he has removed, so far as it can be made out, all the diseased portions of the bone, and also all tuberculous deposits in the wall of the abscess and in the surrounding soft parts, applies a disinfectant solution to the raw surfaces, drains and closes the wounds, and covers the field of his operation by antiseptic dressings. König states that the healing will be much promoted if the whole of the raw inner surface of the abscess cavity be dusted over with iodoform before the external wound is closed, and if the applied edges of both wounds be also covered by this powder. In cases where iodoform is thus applied, the discharge, it is stated, is usually very scanty, and the first antiseptic dressing may be retained for many days. Should the morbid deposit in the scapula be found very near to the shoulder, König would not hesitate, in order to ensure complete removal of the disease, to open this articulation. With strict attention to antiseptic precautions, this may be done, he asserts, without inducing any permanent disturbance. In cases of abscess near to but outside an important joint, and associated with tubercular disease at the articular extremity of one of the long bones, early removal of this disease is indicated, with the view of preventing its extension to the synovial membrane and consequent disorganisation of the joint.

Even in cases presenting indication of diseased bone without any suppuration, the surgeon, König states, should promptly endeavour to make out the seat of the disease, with a view to early operation. If a soft granulation-tumour or circumscribed thickening be found, or slight pain with some localised thickening be made out at a typical seat of osteal tubercular disease, an endeavour should at once be made by a bloodless and antiseptic operation to discover and, if it be found, to remove this deposit. In a case of tuberculosis of bone which has already spread to a joint, the surgeon may succeed by opening the joint in removing all the disease before it has involved much of the synovial membrane. König insists very much on the value of iodoform as a local application in the after-treatment of such cases. By the use of this agent, and its free application to the raw surfaces, together with attention to all the details of strict antiseptic practice, resection of joints, including the wrist and ankle, may be performed, even on patients of advanced age, with much increased chance of success.

W. JOHNSON SMITH.

OTIS ON VESICAL SPASM AND ITS RESULTS.

AT a meeting of the New York Academy of Medicine, on April 6, Dr. F. N. Otis read a paper on 'Persistently Recurring Vesical Spasm resulting in Thickening of the Bladder Walls, Dilatation of the Ureters, Hydronephrosis, and Death from Uræmia'. Dr. Otis cited several analogous cases from literature. A man aged 55 had suffered for twenty years from difficult and frequent micturition. The trouble began with a gonorrhœa, which resulted in chronic urethritis, and finally cystitis. The patient was treated for stricture, and vesical calculus was suspected, but was not found on examination. The patient had gone the usual rounds of all varieties of regular and irregular practitioners. He sometimes obtained relief from the passage of a sound, No. 25, which passed readily into the bladder. Pain in the region of the right kidney had caused the suspicion that there might be a calculus in the pelvis of that organ. Dr. Otis saw the patient in December 1881. He was emaciated and tremulous, and had recently suffered from chills, fever, and sweating. Intense pain on micturition was chiefly referred to the neck of the bladder. The urine, more or less purulent, was passed every fifteen minutes, but contained nothing to indicate organic vesical or renal disease. One or two attacks of pain had occurred on the left side, and were thought to be renal colic, but no tenderness could be detected in that region. The urethra measured 37, but a contraction existed nearly one inch from the orifice, reducing the diameter there to 25. Having seen cases of

long standing presenting similar symptoms to this one relieved by division of contracture of the urethra at this point, he divided the orifice to correspond with the urethra behind it. A No. 37 instrument passed into the bladder of its own weight, showing that no stricture existed behind. The patient was entirely free from pain for four days after the operation, but there was complete urinary incontinence. He then began to have some control over his urine; later in the day there was slight pain, which increased as the control over the urine increased, but not to the degree that had existed before the operation. Suddenly, for the first time, he complained on the fifth day of pain in the glans penis, followed immediately by a series of spasms, similar to those from which he had previously suffered, occurring at intervals of ten or fifteen minutes. Two days later symptoms of uræmia developed, and on the fourth day after the pain attributed to the sudden appearance of vesical calculus, the patient died in a state of coma.

Dr. W. H. Welch made the necropsy. By request, the abdominal organs only were examined. Both kidneys were enlarged. The fibrous capsule was adherent to the surface of the organs. The cortical substance presented a greyish, nearly uniform appearance. The pyramids were encroached upon by the dilated calyces. There were no renal abscesses. The pelvis and calyces of each kidney were greatly dilated, and contained turbid ammoniacal urine. The ureters were likewise dilated, so that their calibre nearly equalled that of the small intestine. The walls of the ureters were thickened. No obstruction to the passage of urine existed either in the pelvis of the kidneys or in the ureters. The wall of the bladder was about four times its normal thickness. The thickening affected all of the coats of the bladder, especially the muscular tissue. The mucous membrane of the bladder was thickened, and presented, especially about the base, slightly elevated, greyish, discoloured patches, such as are seen in so-called diphtheritic cystitis. The capacity of the bladder was about that of the normal organ. It contained ammoniacal urine and a small calculus. This calculus, about an inch in length and conical in shape, resembling somewhat a canine tooth, might have been formed in one of the dilated renal calyces, and was apparently of recent formation, being very friable, and composed wholly of phosphates, without a nucleus of uric acid or oxalate of lime. The prostate was about the normal size, and had not occasioned any obstruction so far as could be detected. The calibre of the urethra seemed to be normal, presenting no evidence of stricture. The spleen was somewhat enlarged, and surrounded by firm fibrous adhesions. The liver, stomach, and intestines presented no noticeable change. Microscopical examination of the kidney showed a marked new growth of fibrillated connective tissue infiltrated with lymphoid cells. The uriniferous tubes were sometimes compressed and atrophied, sometimes found to be dilated, sometimes found to be filled with fatty epithelium.

The diagnosis was chronic cystitis with dilatation of the ureters, hydro-nephrosis, and chronic interstitial nephritis.

The cause of the cystitis was not apparent. In the absence of obstruction or other cause to account for the thickened bladder, the dilated ureters, and the hydro-nephrosis, Dr. Otis thought it quite possible that all the difficulty had been produced by spasm reflected from irritation at a distant part. This view was corroborated by the fact that for a time the symptoms disappeared on division of the narrowed urethra near the orifice, and returned only after the passage of the calculus from the kidney into the bladder, as was evident from the *post mortem* examination. He believed that, had this probable cause of the patient's trouble, constriction near the orifice, been recognised earlier in the course of the disease, before such serious changes had taken place in the bladder, ureters, and kidneys, and had proper measures been adopted for its relief, the patient might have recovered, and enjoyed a life of health and happiness, instead of one of years of extreme suffering, terminating in death.

On the discussion of the paper, Dr. Alfred C. Post said that he had been very well satisfied, in a number of cases of urethral and vesical irritation, that a contracted state of the meatus urinarius had been one very important element in maintaining the irritation. This was often the case in senile enlargement of the prostate. There were many instances in which he found great difficulty in introducing instruments for the purpose of evacuating the bladder, and he had known instances in which this difficulty of catheterisation was obviated by dividing the meatus. A striking case of that kind he saw in consultation a year or two ago. A member of the legal profession, about sixty years of age, had suffered for a considerable time from urinary difficulty in connection with an enlarged prostate, and it had been necessary to evacuate the bladder with a catheter. But, in consequence of the small size of the meatus, a catheter of only very moderate size could be introduced; and, as was well known, the introduction of small catheters in enlarged prostate is usually much more difficult than the introduction of large ones. The small one did not push its way over the enlarged prostate as easily as did the large one. In this case, the attending physician introduced the small instrument up to a certain point, beyond which it would not pass. Dr. Post enlarged the meatus, and introduced a large catheter into the bladder, giving the patient relief. The orifice was dilated by the introduction of large steel sounds, and in the course of a few days the patient dispensed with the catheter, and had not used it now for over a year, although previously he used it regularly. A young man was sent to him from Massachusetts, having a close stricture of the urethra. The contraction was such that he passed his urine only by drops, and with a great deal of distress. Dr. Post was unable at the time to introduce any instrument. He etherised the patient, enlarged the orifice by making a slight incision before and behind, and then passed successively a series of sounds, from 15 millimètres up to 30. These instruments were passed at intervals of two or three days for a week or two, and the patient went home, entirely relieved of the difficulty from which he had been suffering.

Dr. E. L. Keyes thought the whole gist of the discussion necessarily turned upon the question of etiology. It seemed to him that the spasm of the urethra was due to reflex causes, and that relief of the spasm was produced mainly by the direct influence which the instrument passed had upon the sensibility of the deep urethra in the first place, and mechanically upon the contracting muscles in the second place. The size of the instrument was particularly important from the second point of view, just as overstretching of any tonically contracted muscle naturally would put it more in a state of ease, perhaps entirely overcoming its condition of spasm.

Many cases certainly did have symptoms of stricture, symptoms of stone, and symptoms of a great many other things persistently, which turned out to be simple cases of urethral spasm. Among these cases was that of an old sea captain who recently came under his observation, but who was now absolutely relieved, whose micturition, etc, was now perfectly normal; and yet nothing had been done for him whatever except to pass a large sound, as large as the urethra would admit, about half a dozen times. Many cases got well of spasmodic stricture by the passage of a large or smaller-sized sound, and without giving ether; but some cases, again, certainly did not recover on passing a sound as large as the urethra would admit, which recovered when these points of narrowing were razed and the larger instrument was passed into the deeper urethra; the recovery being due, not to the division of the narrowed part, but to the influence of the larger instrument upon the canal below. Still, it was true also that recovery sometimes failed to take place even after the passage of a large instrument, although there was no lesion to account for the symptoms, the mucous membrane not being inflamed. A case of this kind occurred in a patient from a New England State, in blooming health, but afflicted with permanent and frequently recurring spasm of the deep muscles of the urethra, etc, to such an extent that he had had prolonged retention of urine. The urine was absolutely negative as to indications of disease. His malady came on shortly after the death of his wife; there was no inflammatory or other pathological condition known which would account for his symptoms. He was subjected to a number of ordinary forms of treatment; and, finally, after instruments had been used without the least amount of relief, and after having suffered for two or three years, about a year ago the slight anterior narrowings were divided, a large sound was passed into the urethra, and that canal was brought up fully to its alleged natural calibre, but not a particle of benefit followed in micturition, and the patient came to him to-day to ask if anything further could possibly be done. He was now able to pass his urine only under the greatest privacy, away from any mentally disturbing conditions. A 35 or 36 instrument would pass into his bladder without giving him any discomfort. So far as was known, the mucous membrane of his bladder was perfectly normal. With regard to the case, the subject for discussion, he thought the true explanation of it was the most simple one that suggested itself: that the man arrived at a certain age in life when he contracted a gonorrhœa, which was the beginning of his trouble. For some time afterwards, however, he had no troubles, from which he suffered later. Then there arose, as a result of the gonorrhœa, spasm, and, at the same time, or following this, cystitis. The patient had difficulty in expulsion of the urine. Then he had calculous attacks, probably a number of them. These calculi might have been the occasion of further spasm about the bladder, for he had seen a number of cases of that nature, and, indeed, they were quite common. Then there was stone in the kidney, and the other lesions resulting as pointed out in the history. In this case, there was more or less pus in the urine. It often occurred, however, that where difficulty of micturition arose from spasm aside from any known lesion, as a gonorrhœa, etc., no pus was to be found in the urine at any time, as was illustrated in the patient from New England. In Dr. Otis's case, the recurring spasms he considered sufficient to account for the thickening of the walls of the bladder; the attempt to get rid of the irritation about the neck of the bladder might easily lead to hypertrophy of the walls of that viscus. Then, on division of the contraction near the orifice of the urethra, which allowed the easy passage of stone, irritation being removed, the spasmodic contraction of the deep urethra was for a time relieved, and yielded to temporary incontinence. The larger stone afterwards exciting anew spasmodic contraction, incontinence ceased, the other symptoms, uræmia, etc., developed, ending in death.

Dr. J. W. S. Gouley said he thought Dr. Mercier a few years ago very graphically described the class of cases to which Dr. Otis's belonged. He said they originated in very persistent chronic urethritis, or, rather, cervical cystitis following urethritis; cervical cystitis, which gave rise to intense congestion underneath the mucous membrane, thus exciting what he called contracture of the urethro-vesical orifice. There were two states, a spasmodic contracture and a permanent contracture. The spasmodic contracture followed chronic urethritis, and was curable; the permanent contracture, left to itself, was incurable. Permanent contracture produced what he called a muscular valvule, which caused an impediment to urination, similar to that produced by hypertrophy of the median portion of the prostate; and this impediment to micturition caused the bladder to contract spasmodically to expel the residual urine, almost always found in these cases soon after the disease had become permanent. These wrestlings of the bladder against the obstacle at the urethro-vesical orifice, caused hypertrophy of its muscular coat; the residual urine caused cystitis; the inflammation extended up the ureters, and to the pelvis of the kidneys, and the patient died after a certain number of years of pyelo-nephritis, or with acute interstitial nephritis superimposed upon a subacute or chronic condition. A patient might have a permanent contracture of the urethro-vesical orifice for a great many years, without suffering more than the inconvenience caused by the stagnation of the urine. Of course, the stagnant urine, being a foreign body in the bladder, would give rise to spasmodic contraction; but that the bladder could contract spasmodically without an irritant within it, or an obstacle at the urethro-vesical orifice, he did not believe. He could not conceive that spasms of the urethra could cause habitual retention of the urine. In all, or nearly all, cases such as had been described by Dr. Otis, the obstacle was at the urethro-vesical orifice. A very interesting point was, that it was not easy at the *post mortem* examination to discover the urethro-vesical valvule. The bladder had to be examined with the greatest care not to overlook it. It should be examined from above, and not first slit along its anterior border and the prostatic urethra. He had made some modifications of the rectangular sound, by which an absolute diagnosis could be made of both the muscular valvule and of the prostatic valvule. He had now a patient about thirty years of age, who had an urethritis a number of years ago, which still existed. That gentleman had for five or six years been unable to empty his bladder; and for a year before he saw him, he was micturating every few minutes; the urine was purulent. He asked him to urinate, and the patient passed an ounce or two of slightly purulent urine. He then introduced a catheter, and drew off eleven ounces of urine, the last of which was very purulent. Since then he had been introducing the catheter two or three times a

day, and the bladder was now better; but he was not, and would not be, well until the right thing was done. He thought this was the solution of this class of cases, and he would refer all who were interested in the subject to the work of Mercier. The case of encysted calculi referred to by Dr. Otis suggested some that had occurred in his practice, although they were not common. Last week he removed such a calculus from a gentleman sixty-nine years of age. Since the operation the patient was doing well, but he did not believe he would entirely recover, for the reason that he had not before been able to empty his bladder, owing to cystitis causing contracture of the urethro-vesical orifice. The urine had in all probability been dammed back in the ureters, and his kidneys doubtless were damaged.

Dr. Frank H. Hamilton said he was convinced that Dr. Otis had thrown a great deal of light on the subject of reflex irritation, caused by malformations of any sort at the meatus. He was reminded by Dr. Flint of a case which came under their mutual observation some years ago. The patient was suffering from uræmia, and died. Before death, Dr. Hamilton drew off a considerable quantity of urine with a large catheter; there was, therefore, no very marked stricture. There was rather a small meatus, as there was some difficulty in introducing the catheter. The necropsy showed that the patient had hydro-nephrosis, and other related affections consequent upon the long-continued disturbance. Whether the symptoms were due to occlusion of the meatus, was a question which now first occurred to him. He did not think of it at the time as being a possible cause, and no attempts were made to relieve it. He could not accept the possible explanation of Dr. Keyes, that the trouble began in the kidneys. It was well established that inflammatory actions here progressed in the opposite direction, from the meatus upward, very seldom from the kidneys downward; and as this patient suffered from thickening of the walls of the bladder, he would not ascribe this to pre-existing chronic inflammation of the kidneys. (Dr. Keyes explained that he did not mean that the bladder difficulty was first caused by inflammation in the kidney, but that, after calculi had passed from the latter organs, disease had become established; it might then have had something to do with the vesical affection.) Dr. Hamilton said that narrowing of the orifice did not always cause spasm in the bladder; and chronic cystitis, with thickening of the coats of the viscus, was illustrated by a large number of cases in the experience of every surgeon. He met with cases of congenital phimosis, in which there was almost constant narrowing of the meatus, with or without phimosis, and yet at no time during life did the subject suffer from any spasmodic disturbances, or from any irritation of the bladder. A case in point was a patient, at least fifty years of age, who consulted him, had congenital phimosis, with almost complete occlusion of the meatus urinarius, which was so small that he would not attempt to introduce an instrument larger than an ordinary probe. Just within there were about fifteen calculi, which had formed at that point within the past fifteen or twenty years. During all this time, he had had no trouble with the bladder or with the neck of that organ. While, therefore, some cases of spasm of the bladder and difficulty of micturition were due to narrowing of the urethral orifice, there certainly were cases where the latter deformity existed without producing the other symptoms; and he doubted whether the symptoms referred to were to be accounted for in the condition of the meatus so frequently as Dr. Otis believed.

Dr. Otis closed the discussion, and mentioned the case of a young man who suffered from irritation, apparently at the neck of the bladder, and had been for a considerable time passing his urine every ten or fifteen minutes. He had never suffered from any acute inflammatory trouble. Dr. Otis found a narrow orifice, divided it, and for three days afterwards he was obliged to introduce the catheter in order to draw off the urine. At the end of that time, the patient micturated voluntarily at normal intervals, and continued well for a considerable length of time, when his trouble again came on, and contraction again took place. When this was divided, relief occurred a second time, but without the amount of retention which had taken place before. Dr. Otis was not at all certain that the relief in a considerable majority of cases which was associated with contracture of the meatus was not due to the passage of the instrument through the urethra into the bladder. He had been of opinion that in many cases this passage of the sound was essential to the production of relief, but he was equally confident, and more than confident, that the independent influence of the condition at the meatus was sufficient to produce marked trouble at the neck of the bladder. However, he would not quarrel with any one as to the *modus operandi* by which relief was obtained in these cases, but would simply say that, in the graver ones which had gone on for so long a time without relief, it was worth while to try the experiment of making the meatus correspond to the normal size of the urethra, which was easily ascertained, and then pass the sound. He was satisfied that life might be saved in this way. Dr. Hamilton had suggested that there were many cases of contraction of the meatus in which, nevertheless, there was no trouble. This was true, for the majority of the human race had a contracted meatus as compared with the size of the canal behind it, but a great many did so suffer. He had ascertained that, as a rule, in cases where trouble arose, there had been some debilitating influence, for instance, sexual excess. He had observed the occurrence of reflex disturbance in those who had had gonorrhœa, and as many of these had a deposit of cicatricial tissue, it was not impossible this cicatricial deposit had entangled terminal nerve-corpuscles in such a way as to exert something like tetanic influence. For this reason, he considered his explanation of the symptoms as the more probable one. Division of the constricted part gave relief from the reflex symptoms referable directly to the urinary passages, and also from a condition bordering on melancholia.

DONBERG ON ESERINE IN OPHTHALMIC PRACTICE.

IN an interesting paper in the *Vratch*, 1882, Nos. 4 and 5, Dr. H. A. Donberg communicates the results of the use of eserine in various cases admitted into the St. Petersburg Ophthalmic Hospital during the years 1877 to 1880. Of 3,315 cases, eserine treatment was resorted to in 723. At first, the hydrobromate and sulphate of the alkaloid were used; later, the salicylate also, all three in solution of 1 to 1.5 per cent., or in vaseline ointment (1 grain to 1 ounce). Salicylate of eserine is now preferred by the author to all other salts, because of its cheapness, less irritant properties, and superior stability (see

also Merck's description of the salicylate in the LONDON MEDICAL RECORD, Dec. 1879, p. 490). The cases which have undergone eserine treatment were these.

1. *Glaucoma.*—Eserine was used in 259 glaucomatous cases, mostly with excellent results, the explanation of which the author finds in a so-called mechanical theory of the affection. Accepting the views of Max Knies, Weber (see the LONDON MEDICAL RECORD, March 1880, pp. 117-118), Priestley Smith, and others, he regards the increased intra-ocular tension in glaucoma as the result of interrupted excretion, owing to obstruction in Fontana's space. Eserine lowers intra-ocular tension by re-establishing the permeability of filtrating channels around the angle of the iris, through the energetic contraction of the pupil, and the detachment of the ciliary margin of the iris from the cornea. In the author's cases, as in the experience of many other observers, the action of eserine differed in degree, according both to the general constitution of the patients and to such local conditions of the eye as the integrity of the ciliary muscle and the iris, of the nervous apparatus, and intra-ocular contractile fibres. The better all these parts were preserved, the more successfully the remedy acted. In many mild acute cases, cure followed. In chronic glaucoma with exacerbations, the latter often entirely ceased, and the *status quo* was re-established. In many other cases, there were observed considerable and prolonged improvement, or even complete restoration of central vision, and decrease of other glaucomatous phenomena; the visual field, however, mostly remaining contracted. Recognising eserine only as an excellent palliative remedy, the author praises it as a means by which the glaucomatous eye may be prepared for effective iridectomy or sclerotomy. 'After from one to fourteen days' use of eserine,' he says, 'the eye becomes softer, the anterior chamber deeper, the pupil narrower, the media clearer, pain less, the injection disappears, and then iridectomy may be performed as easily as on a healthy eye.'

2. *Purulent Keratitis, Marginal Ulcer of the Cornea, Corneal Abscess, Ulcus Serpens, Hypopion-Keratitis.*—The highly advantageous results obtained from eserine in such cases the author attributes to the diminution of tension in the anterior chamber, which improves the nutrition and favours vascularisation of the diseased cornea. Producing contraction of the pupil, eserine prevents prolapse of the iris, and draws in the already developed prolapsus. 'Since the introduction of eserine into practice at St. Petersburg Ophthalmic Hospital, the perforation of corneal ulcers and prolapsus of the iris became as rare as they had been previously frequent.' In milder cases of hypopion-keratitis, where the lesion of the cornea was comparatively slight, and the purulent infiltration limited, the author often saw rapid absorption in two days, even of very considerable exudation in the anterior chamber, and was able immediately afterwards to use atropine for the prevention or destruction of the synechiæ. In severe cases of hypopion-keratitis, eserine was resorted to after evacuation of the purulent fluid, and that with the best results. The exudation did not reaccumulate; the purulent infiltration of the cornea and pain rapidly disappeared. Of 123 cases of corneal abscess and hypopion, in 68 (56 per cent.) Sämisch's operation or puncture was performed, and was followed by use of (1 per cent.) eserine ointment every two hours; the remaining cases were treated by eserine alone. Of these 123 patients, 12 (9.6 per cent.) left the Hospital unrelieved; in 26 (21 per cent.) sight considerably improved after subsequent iridectomy; the remaining 85 (69 per cent.) recovered, with more or less considerable leucoma or leucoma adherens, and tolerably good sight.

3. *Paralysis of Accommodation after Diphtheria, Traumatic Mydriasis, Partial Paresis of the Oculo-Motor Apparatus.*—Here eserine was used as an adjuvant to other remedies (electricity, iodide of potassium, iron, etc.)

4. It was also used in conjunctival blenorrhœa, with corneal ulcers or prolapsus of the iris, especially in children.

5. Lastly, Dr. Donberg largely used eserine immediately after iridectomy, operations for cataract, and in some cases of removal of foreign bodies from the anterior chamber. V. IDELSON, M.D.

SWEETING ON VACCINATION.

IN a memorandum recently submitted to the Metropolitan Asylums Board, Mr. R. D. R. Sweeting, late medical superintendent of the Fulham Small-pox Hospital, discusses the evidence in favour of vaccination, especially such evidence 'as would seem to be suggested by a residence at a small-pox hospital, and an office devoted to the observation of small-pox and vaccination.' After a brief reference to the discovery and the theory of vaccination, Mr. Sweeting passes to practical considerations in evidence of the value of the operation. These he treats under the heads of (1) the diminution of the death-rate from small-pox in London since the introduction of vaccination; (2) the comparative mortality in the two classes of vaccinated and unvaccinated; (3) the evidence from clinical experience; and (4) evidence from the protection of exposed classes.

In discussing the diminution of the death-rate from small-pox in London since the introduction of vaccination, the author points out that while both the general death-rate and the small-pox death-rate have diminished, the decrease in the latter has been proportionally very much greater than that in the former. This conclusion is based on a table of the general and small-pox death-rates during different periods before and after the introduction of vaccination, compiled by Dr. Carpenter from Dr. Farr's well-known table and the Registrar-General's returns. From this it appears that, while the general death-rate in 1861-70 was about $\frac{2}{3}\frac{5}{0}$, the death-rate from small-pox was about $\frac{3}{1}\frac{5}{0}\frac{5}{0}$ of what it was in 1771-80, there being no reason for the greater decrease in the latter other than the introduction of vaccination. The table stops short at 1870, because, owing to its exceptional nature, it would be unfair, according to the author, to add the decade 1871-80. That period included three serious epidemics of small-pox, the first of which was world-wide in its prevalence, and very malignant in its character. But the exceptional nature of the period is, we think, no reason for its exclusion, and its omission seems to play into the hands of the antivaccinators. They may very justly assert that, if vaccination were the power it is held to be, the epidemic in question should not have been so widespread and malignant as it was; and they may also point out that it is easy to prove that vaccination diminishes small-pox if those years (after the introduction of vaccination) are to be excluded which are notorious for the general prevalence of small-pox. Statistics should be used, not to confirm

any particular theory, but to determine the truth, so far as it is possible to do so by their aid. From this point of view, we think the omission of the period 1871-80 is much to be regretted. It is, however, satisfactory to know that its inclusion would not have shaken the position taken up by the author in regard to the power of vaccination. Although, during the years 1871-80, the small-pox death-rate was nearly double what it was during the two previous decades, it was yet enormously below the death-rate in prevaccination days. The fact that an epidemic of such widespread prevalence and such malignity as that of 1871 had a death-rate so small compared to the death-rate of epidemics of the last century, is strong evidence in favour of vaccination.

In respect of the mortality in the two classes of the vaccinated and the unvaccinated, the author shows that, in the hospitals of the Metropolitan Asylums Board, the mean mortality among the unvaccinated has been 44 per cent.; among the vaccinated, 8 per cent. or less than one-fifth of the mortality among the unvaccinated, while the mortality among the well-vaccinated was still smaller. The objection that the vaccinated do not die of small-pox for the reason that they are 'healthy', and that the unvaccinated die of small-pox, because they are 'unhealthy', is shown to be at utter discord with clinical observation. A second objection, that it is impossible to decide whether persons who have died of small-pox have, or have not, been vaccinated, is also easily disposed of by pointing out that those only are classed among the unvaccinated, in whom no marks are to be found, (a matter which can readily be decided in almost all cases), and who are admitted to be unvaccinated, 'either by the patient, or a near relative on his behalf'.

The evidence from clinical experience consists in the fact that, in those who recover, the severity of small-pox bears an inverse ratio to the quality of the vaccination. 'In proportion as the vaccination is good, so is the severity of the attack mild, the case unaccompanied by complications, and recovery rapid, there being an almost mathematical progression as regards these points from the well-vaccinated through the fairly well vaccinated, and the poorly vaccinated to the doubtfully vaccinated, and the absolutely unvaccinated.'

The author further goes on to state that cases of other disease sent to the hospital, as small-pox, never contracted small-pox, although they were placed in the ordinary small-pox wards, provided they were vaccinated immediately on admission, and were not already incubating small-pox. On the other hand, those cases of a similar character, in whom the operation was neglected, invariably contracted the disease. 'Several cases of mistaken diagnosis, which were sent up as small-pox, admitted by us as small-pox, and hence not vaccinated, on being placed in the ward, were attacked with small-pox at the usual time afterwards.' On these clinical tests the author very justly lays great stress.

Under the 'evidence from protection of exposed classes', the author discusses the immunity from small-pox enjoyed by those nurses and servants of small-pox hospitals who have been revaccinated. Among the staffs at Homerton and Deptford, and on the hospital-ship *Atlas*, no case of small-pox occurred among such as had been successfully revaccinated by the medical officers before entering on duty. At Stockwell, only 'four cases have occurred amongst the staff since 1876'; but it is not stated whether these four had been successfully revaccinated. The account given of the staff at Fulham is, curiously enough, somewhat unsatisfactory. It is stated that, of 295 members of the staff, one escaped revaccination, and contracted small-pox; 294 were revaccinated, and four of these also developed the disease. In the case of these four, we learn from a statement by the chairman (see *Sanitary Record*, Feb. 1882, p. 332), that the disease 'commenced within a few days after they entered the service, and ran concurrently in each case with revaccination', or, in other words, revaccination took place after small-pox had been contracted. This the author omits to state; but, as it changes the whole complexion of the matter, it ought surely to have been mentioned. On the whole, it is concluded that, although a few cases have occurred among revaccinated members of the staff, this occurrence is very exceptional, and that the usual immunity afforded by revaccination is very strong evidence as to its value.

After some remarks on the influence of improved sanitation on the diminution of small-pox, and on the justification of compulsion in vaccination, the author concludes a very interesting paper with some valuable suggestions towards improvement in the system of vaccination of the metropolis. These suggestions are as follows:—(*a*) 'The substitution of the health for the parochial authority, as administrators of vaccination;' (*b*) 'An increased staff of vaccination officers, in connection with sanitary authorities, and a more systematic method of *bonâ fide* inquiry in non-epidemic years, as well as epidemic years;' (*c*) 'That the birth of no child should be registered unless the applicant produces a certificate of successful vaccination, the time now allowed for registration being extended for this purpose;' (*d*.) 'Restriction of the performance of vaccination to public vaccinators, who, in all cases, should have had special training for the work, and should be officials of the sanitary staff.' So far at least as regards the first two suggestions, we have no doubt that they will meet with general approval.

D. MANSON FRASER, M.D.

KÖRTE ON INJURIES TO VESSELS IN DISLOCATION AT THE SHOULDER.

DR. W. KÖRTE of Berlin has recently recorded three cases of injury to the axillary artery during reduction of dislocation at the shoulder (*Archiv für Klin. Chir.*, Band xxvii, Heft 3).

The first case was one of inward dislocation of the head of the right humerus in a man aged 25. The bone was replaced by a friend of the patient, not a medical man, twenty-four hours after the injury, and was effected readily and without violence. A swelling, which had been first observed shortly after the injury, when punctured, on the seventeenth day, discharged a considerable quantity of blood. After repeated hæmorrhage from this swelling, the patient came under the author's notice on the thirty-first day, when operative interference had no chance of success. The patient died in the fifth week from hæmorrhage and septic fever, and, on *post mortem* examination, an oval orifice was found in the wall of the axillary artery on its articular aspect.

The subject of the second case was a man aged 52, who, twenty-four weeks after dislocation of the shoulder, submitted to repeated attempts to effect reduction, an anæsthetic having been administered at each sitting. After the fourth attempt, which was successful, an aneurismal tumour gradually formed

This patient died, soon after he was first seen by Dr. Körte, from rupture of the swelling and hæmorrhage.

In the third case, an axillary aneurism followed an injury to the shoulder, the nature of which at first was doubtful. As the patient, a male aged 29, when first seen, did not present any signs of dislocation, no attempts at reduction were made. Four months later, a catgut ligature was applied to the axillary artery above the seat of aneurism. After secondary hæmorrhage on the fourteenth day after this operation, the artery was tied above and below the tumour. The patient died from anæmia a few hours after the second operation. After death, a wide rent was found in the capsule of the shoulder-joint. This had, according to the author, clearly been a dislocation of the head of the humerus, which caused rupture of the artery at the time of the injury, and afterwards was spontaneously reduced.

To thirty-five old cases, collected mostly from French, American, and English surgical literature, Dr. Körte adds nine other cases that have not hitherto been brought together, including the three to which allusion has already been made, and which came under his own observation. In thirty-five of these forty-four cases, either the axillary artery had been opened, or one of its branches close to its origin. In four cases, the ruptured vessel was the axillary vein; and of the two remaining cases the bleeding was due in one to rupture of a large muscular artery, and, in the other, to rupture of several small arterial and venous branches. Ten patients only recovered; the others died from bleeding after rupture of the aneurismal tumour. Of the four subjects of injury to the axillary vein, three died and one recovered. In fifteen at least of the whole number of cases, the injury to the vessel occurred in connection with a recent dislocation. In many of these cases, the rupture of the vessel had evidently been caused by the direct action of the head of the bone at the time of injury, as either no attempt at reduction had been made, or but very slight force had been applied in order to replace the head of the bone. In one of the cases observed by Dr. Körte, the reduction was effected spontaneously. In cases of this kind, the bleeding does not come on until after reduction, and when the vessel is no longer compressed by the head of the humerus. In cases of recent dislocation at the shoulder, indications of compression of the main vessel by the displaced bone have frequently been observed. The author mentions a case in which no pulsation could be felt in the brachial and radial arteries, and he alludes to similar cases that have been reported by Erichsen and Jössel. Of the fifteen cases of ruptured vessel with dislocation of the shoulder, the former injury was due undoubtedly in five cases, and with much probability in five others, to the direct action of the displaced head of the humerus. In one of the remaining cases, the arterial injury was probably the result of extreme or unnecessary violence, as the reduction was effected by Cooper's method, without removal of the operator's boot. In another case, in which the dislocation was complicated by fracture, the artery was probably torn by a sharp edge of one of the fragments. In the remaining three cases, the cause of the arterial injury could not be determined. In twenty instances, the rupture of the vessel occurred during the reduction of dislocation of some standing. In eight of the forty-four cases, no information is to be obtained as to whether the dislocation was recent or old at the time of the vascular injury; but Dr. Körte thinks that very probably in most of those cases the latter condition existed. In nine of the twenty cases of old dislocation, the articular injury had occurred at least two months previously; in three instances only had the displacement lasted for a very long time (sixteen weeks, four months, six months). In the collection of cases published by Mr. Callender in 1866, all the patients save one were over fifty years of age. In Dr. Körte's list, fifteen were under this age, and six of these were between twenty and thirty years of age. In eight only of the total number of cases is any express mention made of atheromatous degeneration of the arteries.

As to the precise cause of the injury to the vessel in the reduction, or attempt at reduction, of an old dislocation at the shoulder, Dr. Körte states that his collected cases are too few to enable one to arrive at any definite conclusion. Experience teaches that violent stretching of the upper limb and long-continued and forcible pressure on the soft parts of the axilla may do much mischief. But, then, every surgeon who has had to deal with old dislocation at the shoulder knows that much more force is required in such cases than in the reduction of a recent dislocation; and, as most are aware, the considerable force required, in order to restore the head of the bone to its normal position, is, in most instances, applied with impunity. There must, therefore, be some special conditions to account for the injury to the vessel in these instances, which, in relation to the number of cases of old dislocation safely and successfully reduced, are extremely rare. These conditions, Dr. Körte finds, are degeneration of the arterial walls and firm adhesion of the displaced extremity of the humerus to the surrounding soft parts, especially to the large vessels. In several cases in Dr. Körte's list, an old dislocation had been complicated by fracture of the upper end of the humerus, or of the margin of the glenoid cavity. With regard to the form of the vascular injury in these cases, the artery or vein seems in most cases to have been completely, or almost completely, torn across. Mention is made in several instances of simply a small perforation on one side of the vessel, indicating the separation of one of the branches at its origin from the main trunk. Perforation of this form may be caused also by the puncture of a sharp fragment of bone.

In eighteen cases, the aneurismal swelling formed and became apparent immediately after the reduction, whilst in twelve cases it developed gradually. In this latter class of cases, the direct flow of blood from the wounded artery is very probably retarded or arrested for a time, in consequence either of inrolling of the divided inner coat, or of temporary maintenance of the continuity of the outer coat. In some rare cases, the inrolling of the inner coat of the divided artery has prevented the formation of an aneurism, the result having been either complete and spontaneous recovery or gangrene of the limb. Though, in most instances, the nature of the injury is at once clearly indicated, some few instances have been recorded in which the diagnosis was rendered very difficult, in consequence of absence of pulsation in the axillary tumour and of persistence of the radial pulse.

In discussing the treatment of this injury to the axillary artery or vein, Dr. Körte states that very little is to be expected from fixing the limb and compressing the tumour. Three cases, however, of recovery after such treatment have been reported. Repeated puncture of the tumour has always been followed by

death from bleeding, alone, or associated with septic poisoning. All three cases, in which the aneurism was laid open, and the vessel tied above and below the perforation, terminated fatally. Of thirteen cases in which the subclavian artery was tied, six terminated in recovery and the others in death. Of the two cases in which the upper limb was removed, one was successful and the other terminated fatally. Dr. Körte is of opinion that, in cases of small tumour not presenting the characteristic signs of an aneurism, the most suitable treatment is complete rest of the limb, with pressure over the axilla, the patient being carefully watched. In cases of rapidly developed and undoubted aneurismal swelling, he would recommend antiseptic deligation of the subclavian artery. If the tumour have existed for some time, and pressure on the subclavian artery do not arrest its pulsation, the only possible treatment would be the very dangerous one of incision of the tumour and double ligature of the wounded artery.

W. JOHNSON SMITH.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1. IJEVSKY, P. J.—On Electric Baths. (*Vratch*, 1882, No. 5, pp. 65-66.)

2. LESENEVICH, B.—Tincture of Seeds of Carduus Mariæ in Hæmoptysis. (*Vrach. Vedom.*, 1882, No. 11, p. 3061.)

3. NETZETZKY, V.—On the Treatment of Facial Erysipelas by Scarification and Opium. (*Vrach. Vedom.*, 1882, No. 11, p. 3069.)

4. CHAVLOVSKY.—On the Treatment of Diphtheria by Tar. (*Vrach. Vedom.*, 1882, No. 14, p. 3112-13.)

5. WITT.—On the Anthelminthic Properties of Tannate of Pelletierine. (*Petersb. Med. Woch.*, and *Vratch*, 1882, No. 5, p. 75.)

6. DAVIDOFF, P. N.—Chloral Hydrate in Diphtheritis. (*Vratch*, 1882, No. 5, pp. 76-77.)

7. MORRA and GHIRARDI.—The Antithermic Action of Carbolic Acid. (*Gazz. Méd. de Torino*, 1881.)

8. PERROTIN.—Hypodermic Injection of Ergotine. (*Thèse de Paris*, 1881.)

9. SMITH.—Sulphide of Calcium as an Antisuppurative. (*New York Med. Jour. and Obstet. Rev.*, June.)

10. SASSEZSKI.—The Treatment of Dyspepsia. (*Jour. de Méd. d'Algérie.*)

11. GORGUES.—Permanganate of Potash in Blennorrhagia. (*Jour. de Méd. de Paris.*)

12. CURRIE. — Treatment of Excessive Sweating. (*Michigan Med. News.*)

13. WIEGAND.—The White Ash. (*Amer. Jour. of Pharm.*, Feb.)

14. FERRAUD.—Antipyretic Action of Carbolic Acid and Salicylate of Soda in Typhoid Fever. (*Gaz. Méd. de Paris*, June 17.)

15. VINRA Y CARRERAS.—Vesicant Properties of Cerocomes, Mylabris, and Œnas. (*Rev. de Clin. Med.*, Aug. 1881.)

16. FRÄNKEL, E.—Experimental Researches on the Injection of Medicated Substances into the Lung-Tissue. (*Deutsch Med. Woch.*, 1882, No. 4.)

17. STEWART, F. E.—On Nitro-Glycerine in the Treatment of Anæmia of the Brain. (*Therap. Gaz.*, May 1882.)

18. ANDEER.—Resorcine in Diphtheria. (*Centralb. für die Med. Wiss.*, No. 20, 1882.)

19. LASCHKIEWITZ. — Pilocarpine as a Remedy in Diphtheria. (*Deutsches Archiv für Klin. Med*, Band xxx)

20. KOHN.—The Action of Aloes. (*Berl. Klin. Woch.*, Jan. 30, 1882.)

21. STUMPF.—The Influence of Certain Drugs on the Secretion of Milk.

22. WHIFFEN.—A New Variety of Cinchona. (*Pharm. Centralbl. fur Deutschland*, No. 3, 1882.)

23. REUTER.—Quinine and Wet Cravats in the Treatment of Epileptoid Convulsions. (*Memorab.*, Jahrg. xxvi.)

24. HAEHNLE.—Copper in Enteric Fever. (*Memorab.*, Jahrg. xxvi.)

25. PRETORIUS.—Pilocarpine in Scarlatinal Dropsy. (*Jahrb. für Kinderheilk.*, 1881.)

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1. *Ijevsky on Electric Baths.*—In a series of experiments made at Professor Drosdoff's wards, Dr. Ijevsky (*Vratch*, No. 5, 1882) tried the physiological and therapeutic effects of electric baths lately recommended by Dr. Paul (see the LONDON MEDICAL RECORD, May 15, 1882, p. 186) for various nervous affections. He came to the following conclusions as to the physiological effects. 1. On immersing into the bath (at 27 deg. Reaumur = 92.75 Fahr.), through which a warm current passes, the subject experimented upon feels a pleasant sensation all over the body. An increase of the strength of the current produces muscular rigidity, and then contraction (especially in the limbs placed near the poles), which are painless, unless the current be too strong. 2. After the bath (five to ten minutes' duration), the pulse is reduced in frequency (seven beats if normal before, eight to twelve beats if accelerated), the respiration becomes more regular, quieter, and deeper. 3. Cutaneous sensibility to Weber's æsthesiometer and electro-muscular irritability increase, electro-cutaneous sensibility decrease; the muscular strength, tested by the dynamometer, immediately after bath, decreases, but then progressively increases. 4. The weight of the body increases. The therapeutic effects were examined on patients (1) with functional nervous affections from anæmia and general malnutrition; (2) with rheumatic affections; (3) with muscular tremor from overwork; and (4) with saturnine affections. 1. Under the systematic treatment by electric baths, the appetite and general strength of patients improve; the periodical nervous paroxysms gradually decrease both in their strength and duration. 2. In rheumatic cases, the pain and tenderness decrease. 3. Tremor, resulting from the muscular exhaustion, gradually, though very slowly, decreases. 4. Saturnine functional nervous disorders, which but slowly improve under ordinary treatment, rapidly disappear under the use of electric baths, the recovery being permanent.

2. *Lesenevich on Tincture of Carduus Mariæ in Hæmoptysis.*—Dr. Lesenevich (*Vracheb. Vedom.*, 1882, No. 11) tried tincture of carduus mariæ in five cases of phthisical hæmoptysis, administering 15 to 20 drops, in a tablespoonful of water, every two hours. In three of those cases, where an initial infiltration of the apex of the lung existed, the blood in the sputa greatly diminished in quantity after six doses, and entirely disappeared after two days' treatment. This took place after digitalis, acids, and ergotine had failed to relieve. But in the remaining two cases, with cavernous symptoms, three days' use of the tincture of carduus mariæ, proved quite ineffective, while ergotine, used afterwards, stopped hæmoptysis within 1½ day. [Carduus mariæ s. *Silybum marianum* Gaertner, fam. *Compositæ*, trib. *Cynareæ*, had been much used and vaunted as a remedy for hæmoptysis by Rademacher and his pupils, and since then forgotten. The chemical

and pharmaco-dynamic properties of this plant are little known. It contains a bitter principle, which produces nausea, vomiting, and other gastric symptoms, when the tincture of the seeds is administered in large doses. In Russia, the remedy was again introduced into practice by Professor Laschkevich of Charkoff, in 1878; and the *Vracheb. Vedom.*, 1880, No. 444, p. 1867, contains a paper of Dr. Shushliabin of Charkoff, who, basing on eighteen months' experience, recommends the use of tincture of carduus mariæ, from forty drops to a teaspoonful, several times a day, for hæmoptysis depending on congestion to the lungs.—*Rep.*]

3. *Netzetzky on the Treatment of Facial Erysipelas by Scarifications and Opium.*—Dr. V. Netzetzky of Chojent, Syr-Darian District, Asiatic Russia, describes (*Vracheb. Vedom.*, No. 11, 1882) a treatment of erysipelas successfully practised by native (Sart) barbers, and consisting in numerous superficial vertical scarifications made by a razor over the whole diseased part. After the bleeding spontaneously stops, they moisten the affected surface by an aqueous solution of opium (two grains to a drachm), and cover with a layer of cotton-wool. Rapid cure follows, as the author alleges; he himself observed two cases successfully treated in this way.

4. *Chavlovsky on the Treatment of Diphtheria by Tar.*—Dr. Chavlovsky of Warsaw (*Vracheb. Vedom.*, No. 14, 1882) is very enthusiastic about the treatment of diphtheritic angina by the internal administration of a paste, made by triturition of one or two teaspoonfuls of oleum cadinum, with half a pound of fresh butter. A teaspoonful of this mixture is given every two or three hours. Simultaneously, the author applies the same (but a stronger) preparation to the front of the neck, covering it, after smearing, with wadding. He also makes the patient swallow a piece of cold fresh pure butter every quarter to half hour, or an hour. He alleges that this treatment rapidly produces diminution of the lymphatic swelling and pain, and makes swallowing much easier.

5. *Witt on the Anthelmintic Properties of Tannate of Pelletierine.*—Dr. Witt, of Moscow, successfully tried the action of the alkaloid of pomegranate in three cases of botriocephalus latus, and in two of tænia. His patients suffered from worms during one-and-a-half to eight years, the usual treatment having failed to bring away the worm's head. In each instance, a single dose of 1.5 grammes of pelletierine, given after usual preparation by dieting, and followed in two or three hours by 15 grammes of castor-oil, proved to be sufficient to expel the worm entire. [Dr. Witt's experience, therefore, confirms the results of Landrieu, Dujardin-Beaumetz, Laboulbène, and others. In the LONDON MEDICAL RECORD, June 1880, p. 228, is to be found Dujardin-Beaumetz's paper on the alkaloids of the pomegranate.—*Rep.*]

6. *Davidoff on Chloral in Diphtheritis.*—Dr. P. N. Davidoff of Peterhof (*Vratch*, 1882, No. 5) highly recommends the internal administration of chloral in diphtheritic affections of the larynx in children, three to five grains every two hours, in solution with gum and a drop of peppermint essence. [The author arrived at this method quite accidentally, and independently of other observers. He did not know that before him Lorenzo treated diphtheritis by glycerine solution of chloral (ʒss to ʒj in ʒss by teaspoonfuls; in mild cases locally only), or that Korn nine years ago successfully treated the faucial diphtheritis by local application of (15 to 30 per cent.) glycerine solution. (*Allgem. Med. Central-Zeit.*, June 1, 1881.) See also Rokitansky's paper on 'Chloral in Diphtheria', in the LONDON MEDICAL RECORD, May 1879, p. 192.—*Rep.*]

V. IDELSON, M.D.

7. *Morra and Ghirardi on the Antithermic Action of Carbolic Acid.*—Morra and Ghirardi publish, in the *Gaz. Med. di Torino*, 1881, and *Jour. des Science Méd. de Louvain*, a research, of which the following are the conclusions. 1. The best method for the internal administration of carbolic acid is the rectal passage. 2. Carbolic acid has the constant effect of lowering the temperature, but its action does not last long. 3. Further administration of the remedy may arrest a fresh rise of temperature. 4. Before repeating the enema, it is necessary to wait until the temperature shall have again attained 39 deg. Cent. (102.2 Fahr.) 5. Carbolic acid has a different action in different persons. It is more energetic in women, in whom its effects should be watched from the commencement. In their case the dose should be smaller. 6. The dose of carbolic acid in an enema should not exceed 2 grammes (30 grains). 7. The action of the remedy, in all probability, is less appreciated on the pulse, and still less on respiration, but further observations are necessary on this point. 8. It would be well, during treatment, to watch the condition of the heart and the senses, although the authors of the research have not had the opportunity of recording any signs of cardiac weakness or of albuminuria brought on by the use of this remedy.

8. *Perrotin on Hypodermic Injections of Ergotine.*—Dr. Perrotin, in his *Thèse de Paris*, 1881, points out that the method of operating plays a large part in the success of hypodermic injections of ergotine. The injection must be made slowly in the cellular tissue, as far as possible from the deep surface of the skin, with a clear liquid. All preparations showing any deposit should be rejected. The administration of ergotine, by the hypodermic method, is preferable to any other to combat the hæmorrhage consecutive on abortion and delivery. The action is more rapid and certain. Injections seem to be useful even in hæmorrhage of those organs which show few smooth fibres. Epistaxis and hæmoptysis are favourably influenced by this treatment. Experiments have been made which have given satisfactory results in treating small aneurisms, varices, and atony of the bladder; but where the success is truly surprising, is in prolapse of the rectum. Up to the present time, every operation has in a short time brought on radical cure.

9. *Smith on Sulphide of Calcium as an Antisuppurative.*—Dr. Andrew H. Smith furnishes to the *New York Med. Jour. and Obstet. Rev.*, for June 1882, a report of the committee on the use of sulphide of calcium for the purpose of preventing or diminishing suppuration. After giving the experience of several members of the society, Dr. Smith concludes his report as follows. Judging from this limited number of cases, it would seem that we are warranted in concluding that in many cases of suppurative affections, ranging from the small pustules of acne to extensive suppurating surfaces, an appreciable, and often a very marked, benefit is derived from the use of calcium sulphide; suppuration which would otherwise take place being averted, or the quantity and duration of an existing discharge being lessened. At the same time, its action is not uniform; and in many apparently favourable cases it will fail entirely. The drug is somewhat prone to irritate the stomach;

and this circumstance affords an indication for small doses frequently repeated instead of larger ones at longer intervals. One-tenth of a grain every two hours in acute cases will generally secure the full therapeutical action of the drug, but larger doses may sometimes be required, and some patients will bear well a grain three or four times a day. Even in small doses, the sulphide will occasionally produce headache, and the patient is usually more or less annoyed by eructation of sulphuretted hydrogen.

10. *Sassezki on the Treatment of Dyspepsia.*—M. Sassezki (*Jour. de Méd. d Algerie*) has determined, in the cases of three patients suffering from chronic gastritis and four healthy persons, during a phase of profuse sweating, the degree of acidity of the liquid taken from the stomach, the digestive power of the latter on fibrine, and the amount and the degree of acidity of the urine. He found that the sweats weakened the digestive power of the gastric juice, reduced at the same time its acidity, and that also of the urine; and this the more energetically the more abundant the perspiration was. From the practical point of view, the author inquires if, amongst dyspeptics subject to perspiration, it would not be well to try atropine to diminish the perspirations, and to increase, at the same time, the acidity of the gastric juice. He, likewise, is of opinion that this same acidity might be increased by rendering the urine alkaline by means, for instance, of a vegetable diet. He throws out the suggestion, whether the instinct which induces the inhabitants of hot countries to instinctively prefer a vegetable diet, is not to be found here.

11. *Gorgues on the Employment of Permanganate of Potash in Blennorrhagia.*—MM. Spillman and Weiss have produced good results in the treatment of blennorrhagia by permanganate of potash. These authors base their treatment on the rapidly destructive action of this substance on a micro-organism which they describe as existing in blennorrhagia. The same means was made the subject of a work by M. Gorgues, analysed in the *Jour. de Méd. de Paris.* Most of the cases of blennorrhagia and vaginitis brought to notice had passed the acute stage; chronic discharges running on for months, absolutely rebellious to any other mode of treatment, completely disappeared in twelve or fifteen days. M. Gorgues employed solutions of 1 in 250 or 1 in 500. The pain in the female is very slight. There is never seen, even with the injection of a solution of one per cent., a discharge tinged with blood, such as takes place just after the employment of caustics. No particular means of using it is to be observed. If the injection penetrate into the bladder, there is no cause for uneasiness. On the contrary, Demarquay has treated with success cases of chronic cystitis in this way. M. Gorgues gives one, sometimes two injections daily. In the male, the injection of a solution of 1 in 250 has determined slight dryness.

12. *Currie on Excessive Sweating.*—Dr. T. H. Currie of Lebanon says, in the *Michigan Med. News*: 'For over thirty years I have used the following prescription, without a single failure, in sweats from whatever cause: Alcohol, Oi; sulphate of quinine, 3i. Wet a small sponge with it and bathe the body and limbs, a small surface at the time, care being taken not to expose the body to a draught of air in doing it. In one case, a neighbouring physician was poisoned while dressing a mortified finger. He suffered untold misery, and was drenched with perspiration for a number of days, and his life was despaired of. When I saw him, I ordered him to be bathed immediately in the above solution, and that this be repeated once in two hours. The third application stopped all perspiration, and convalescence began at once.'

13. *Wiegand on the White Ash.*—A short paper, by Mr. T. S. Wiegand, in the February number of the *Amer. Jour. of Pharm.*, describes the white ash, *Fraxinus Americana*, sometimes, though improperly, termed *alba*. It grows throughout the North-Eastern States, and is also found in Canada. The bark, which is the part used in medicine, is found in commerce of a light salmon colour, and has little odour, but a bitterish taste. A wine of white ash is largely used in Philadelphia for dysmenorrhœa, and is made by macerating and percolating one pound of the ground inner bark with sherry wine, collecting four wine pints. The dose is a teaspoonful three times a day.

14. *Ferraud on the Antipyretic Action of Carbolic Acid and Salicylate of Soda in the Treatment of Typhoid Fever.*—At a recent meeting of the Paris Société Médicale des Hôpitaux, M. Ferraud (*Gaz. Méd. de Paris*, June 17) gave an account of M. Desplats' clinical researches on the antipyretic action of carbolic acid and of salicylate of soda in the treatment of typhoid fever. He said that he had criticised a former communication of M. Desplats on the same subject; and M. Desplats had protested against the criticism in which M. Ferraud mentioned that the doses currently employed by M. Desplats were likely to bring on serious complications. This is also the opinion of MM. Damaschino, Siredey, Dreyfus-Brissac, Féréol; and Dujardin-Beaumetz believes that he has summed up the opinions, pronounced in the course of this discussion, by saying that carbolised treatment is dangerons, and exercises no influence on the progress of the fever. This conclusion M. Ferraud think to be too rigorous. M. Dreyfus-Brissac and M. Féréol are of opinion that the accidents are partly due to accumulation of carbolic acid in the blood and tissues. M. A. Robin, basing his opinion on numerous observations, believes that this substance does not remain more that forty-eight hours in the organism. This is, doubtless, true when the kidneys are intact, but in typhoid fever these glands are often attacked with changes, of a temporary nature, it is true, but which impede elimination. M. Ferraud also points out, on this part of the question, that those persons who have occupied themselves with the mechanism of the symptoms of poisoning brought about by the abuse of carbolic acid in surgical practice, have charged this substance with inducing in its passage through the kidney temporary lesions which oppose the ulterior elimination of the drug. It has likewise been said that the poisoning, consecutive on the use of iodoform dressings in certain subjects only, was due to the fact that concomitant use had been made of carbolic acid, the latter irritating the kidney so as to obstruct the renal filter in such a manner that the iodine set free by the iodoform accumulates in the blood.

15. *Vinra y Carreras on the Vesicant Properties of Cerocomes, Mylabris, and Enas.*—Dr. J. Vinra y Carreras (*Revista de Clin. Med.*, Barcelona, Aug. 1881, p. 357.) has undertaken at the instigation of the therapeutic commission of the Academy of Medical Sciences of Catalonia, researches were undertaken with the object of determining the properties of these insects kindred to cantharides. In the various experiments, the dried powder or plasters made with the powder were used. The conclusions of this memoir are of some importance. 1. There

exist in the tribe of cantharides many vesicant species, by means of which a powder, which contains a larger or smaller quantity of cantharidine, and which is available for the preparation of vesicant plasters, is obtained. 2. Some kinds of mylabris, of cerocomes, and of enas, yield a powder which is acceptable in practice, and even in certain cases preferable to the powder of common cantharides, because it causes less acute pain. 3. The local effects are analogous to those of ordinary blisters, as regards the revulsive action and the formation of phlyctænæ containing serous matter. However, their application does not give rise either to general phenomena or to local troubles of the genito-urinary organs. It is, therefore, to be hoped that, by multiplying and varying researches, a substitute for cantharides may be found, possessing all their advantages without any of their drawbacks.

16. *Fraenkel on Injection of Medicated Substances into the Lung-Tissue.*—Records of experimental attempts to deal directly with the lung-tissue, whether for the treatment of existing disease or for physiological purposes, are to be found but sparingly in medical literature. Dr. E. Fraenkel records (*Deutsche Med. Woch.*, No. 4, 1882) a whole series of experiments made with a view to the study of the effects produced by the injection into the lung-tissue of various medicated substances: 1. upon the local tissues; 2. upon the general organism. He used the following substances: carbolic acid, in a strength of 1, 2½, 4, and 5 per cent.; 4 per cent. watery solution of boracic acid; 5 per cent. of iodoform in olive-oil; 2, 4, and 5 per cent. solution of acetate of alumina. Rabbits were used for the experiments, and the injections were made with a syringe fitted with a very long and fine cannula. The number of daily injections varied from one to six, and the amount injected each time was always the same, 1 gramme. In hardly any case was there any reaction produced, a slight cough here and there being the only symptom. Even when the animals were kept alive for weeks, no changes took place which could indicate any spreading affection of the parenchyma of the lung, and physical examination invariably gave a negative result. Some of the animals gained considerably in weight. The pathological results obtained are classed as primary and secondary. The first consisted of hæmorrhage into the lung-tissue and into the pleural cavity; but in neither case was it of importance, for the most part becoming absorbed, and in only one or two cases leaving a slight pleural adhesion. The secondary results consisted of local infiltrations and cellular proliferation in the lung-tissue, but in every case these were found to remain local, and to show every tendency towards healing. From the stand-point of these experiments, and from certain other clinical facts, Dr. E. Fraenkel states his conviction that the human lung, also, will come to be regarded as an especially adapted organ for the reception, by parenchymatous injection, of antiseptic remedies. Cases of progressive chronic phthisis he regards as particularly indicative of this method of treatment, especially in the earlier stages of catarrh and infiltration of the apex; and he looks to it to alter the character of the inflammation in the already affected spots, and to assist the natural tendency of the healthy tissue around to throw out a protecting barrier of inflammatory material. In cases, also, of gangrene of lung and putrid bronchitis, the injections might be of service. In one case of this latter kind, injections of five per cent. carbolic lotion were employed, and, although no improvement was observed, there was also no trace of any injury having been suffered by the lung.

E. CLIFFORD BEALE, M.B.

17. *Stewart on Nitroglycerine in the Treatment of Anæmia of the Brain.*—Dr. F. E. Stewart of New York city speaks highly (*Therap. Gaz.*, May 1882) of the value of nitroglycerine in the treatment of epilepsy and other complaints supposed to be due to cerebral anæmia. 'Sick headache of the anæmic variety,' he says, 'in which compression of the carotid artery on the painful side increases the pain, is immediately mitigated by this agent. When, however, compression relieves the pain, the remedy is worse than useless.' He mentions, incidentally, the effects produced on chemists and others engaged in the manufacture of the pills and other preparations of nitroglycerine. Mr. G., for example, stated that an invoice of nitroglycerine, in the form of a ten per cent. solution, was received by him, and that for two days he was engaged in transferring it into bottles for greater safety in storing. The first day he suffered from a dull pain in the head, which increased as he continued the operation of bottling. There was marked throbbing of the temporal arteries, and the face was moderately flushed. The pain continued after leaving the laboratory, and sleeplessness was a marked symptom. For several days after handling the drug, he suffered from a continued dull, unremitting headache. The testimony of Mr. L., who is engaged in the same work, is much to the same effect. In his case, it also causes headache—a dull, continuous pain, lasting for some hours. Mr. McG., who is occupied in preparing the mass for the pills, says that both he and his associates suffer much from headache and throbbing in the carotid and temporal arteries. In some instances, a feeling is experienced as if the head were swollen across the temporal region. Nausea and throbbing are of frequent occurrence, but, after a time, they disappear, and the system seems to acquire a tolerance of the drug. In the handling of it, however, no matter how often, headache is the result. The nausea resembles sea-sickness, and is relieved by going out into the fresh air. The headache, however, continues for several days, and insomnia is a frequent symptom. In the pill-room, a large number of girls are employed, and, when they are making nitroglycerine pills, the symptoms already mentioned frequently occur. The pills are made by the ordinary method, being rolled out by hand. The girls are at first attacked with severe headache, flushed face, throbbing arteries, nausea, and vomiting, and are frequently obliged to leave the room, or even to go home, to recover from the effects of the drug. After a time, a certain degree of tolerance is established, and the most severe symptoms, in a great measure, disappear; but headache is always a result of the handling of the mass in pill-making, even with those accustomed to the operation.

WILLIAM MURRELL, M.D.

18. *Andeer on Resorcine in Diphtheria.*—Dr. Andeer strongly recommends this remedy in diphtheria (*Centralbl. für die Med. Wiss.*, 1882, No. 20). In the slighter cases, he says, a sharp application of resorcine crystals or of concentrated vaseline ointment of resorcine will be sufficient; in the severer forms, it must be applied repeatedly; and in the severest forms it must be used internally as well as locally. Dr. Andeer alleges that he has treated in this manner 222 cases of diphtheria; all, without exception, recovering. The good results of a purely

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See also the **British Medical Journal**, Jan. 28, 1882 ; the **Medical Times and Gazette**, Jan. 7, 1882 ; the **Medical Press and Circular**, March 15, 1882 ; and the **Chemist and Druggist**, Feb. 15, 1882.

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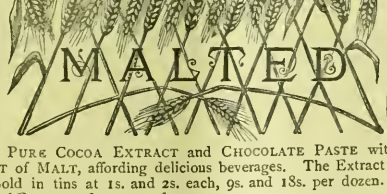
FRY'S  COCOA AND FRY'S CHOCOLATE

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Silica	0.60
Carbonate of Calcium	2.07
Carbonate of Magnesium	1.03
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Arsenic (AS^2 0.5)=Arseniate of Sodium ..	0.83
TOTAL	17.50

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THE PRACTITIONER of September 1881, reports a lecture entitled 'Recent Advances in the Therapeutics of Diseases of the Skin', by Professor W. A. JAMIESON, M.D., F.R.C.P.Ed. The following is an abstract therefrom:—'Itching, which owes its origin to too slow a current of blood, of which the most typical example is that seen in **Eczema** connected with varicose veins of the leg—but to the same category also many examples of Pruritus Scroti, Labiorum and Ani may be referred—is best relieved by careful flannel bandaging, well applied suspensory bandages, and laxative salts or mineral waters, which unload the rectal veins by freeing the portal circulation, combined locally with **weak tarry lotions**, one of the best of which is **Wright's Liquor Carbonis Detergens**, a well-made **alcoholic solution of Coal Tar**, suitably diluted.'

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local treatment in the milder forms indicate, he considers, that the disease is then a purely local and not a general affection. JAMES ANDERSON, M.D.

19. *Laschkewitsch on Pilocarpine as a Remedy in Diphtheria.*—The author (*Deutsches Archiv für Klin. Med.*, vol. xxx, Heft 1-2, Nov. 1881) replies to Guttmann's high laudation of pilocarpine as a specific against diphtheria, and narrates nine cases treated in the Diphtheria Hospital of Charkow with this remedy without the least benefit.

20. *Kohn on the Action of Aloes.*—From a long series of observations on man and the lower animals, Kohn (*Berl. Klin. Woch.*, Jan. 30, 1882) finds that, when a solution of aloes is used hypodermically, there is no purgation. The same result follows the injection of aloin. Only in one case did any purgation take place, and that was in a hysterical patient. After the administration of aloes, there were once or twice inflammation of the lower intestine, congestion of the kidneys, and ecchymoses of pericardium and pleura, and often the urine contained albumen and tube-casts. Kohn concludes his paper by remarks on the quantity of aloes necessary to destroy life in various animals.

21. *Stumpf on the Influence of Certain Drugs on the Secretion of Milk.*—As the result of a prolonged series of experiments on the secretion of milk, Stumpf has come to some interesting practical conclusions. He used iodine as an example of a metalloid, lead as a metal, morphia and pilocarpine as alkaloids, salicylic acid as an aromatic, and ethyl-alcohol as representative of the alcohol group. With regard to the quantity of milk, he finds that iodide of potassium causes a considerable diminution; that alcohol, morphia, and sugar of lead do not alter the quantity; that salicylic acid somewhat augments the amount; and that pilocarpine is no promoter of the secretion. As regards the quality of the secretion, iodide of potassium causes some disturbance of the glandular functions, with fluctuations of the ingredients; alcohol and spirituous liquors increase the relative amount of fatty material, so that they are to be regarded as dietetic means of promoting the secretion of milk; lead, morphia, and pilocarpine cause no change; salicylic acid appears to produce an increase of the sugar. Lastly, with reference to the passage of drugs into the milk, he finds that iodide of potassium passes at once into the secretion, and disappears in the human subject as soon as the administration ceases, but in herbivora remains longer. It does not appear in any relative amount to the quantity taken, and in all cases it is united with the caseine. Alcohol in herbivora does not pass into the milk. In small doses, lead only passes into the milk in traces, and continues to do so for some time after the cessation of administration. Salicylic acid in large doses only appears in very small amount in the milk, and more in man than in herbivora.

22. *Whiffen on a New Variety of Cinchona.*—Whiffen (*Pharm. Centralbl. für Deutschland*, No. 3, 1882) has analysed a new variety of cinchona bark (cinchona cuprea) which has recently come into the market, and found it to contain a crystalline alkaloid, which he has named 'ultra-chinin'. It is present in the bark to the extent of 0.1 to 0.8 per cent., and appears to possess the action of the usual cinchona alkaloids.

23. *Reuter on Quinine and Wet Cravats in the Treatment of Epileptoid Convulsions.*—The author (*Memorabilien*, Jahrg. xxvi, Heft 8) treated a child of his own, who suffered from severe convulsive fits, occurring always during the night, with the usual anti-epileptic remedies, without the production of much benefit. He finally tried the administration of a fourth of a gramme (4 grains) of hydrochlorate of quinine at bedtime, wrapping at the same time a cold wet towel round the child's neck. Amelioration of the symptoms soon followed, and the fits became much less frequent. After a time, the wet towel was discontinued, and the quinine was given only twice in the week, without a single return of the fits.

24. *Haehnle on Copper in Enteric Fever.*—Burq, having observed immunity from cholera among copper-workers, recommended the use of copper in the treatment of enteric fever. Haehnle (*Memorabilien*, Jahrg. xxvi, Heft 8) has carried his suggestion into practice, and has found that copper is a specific and valuable remedy in many cases of typhus. He administered 1.5 grammes of the tincture of the acetate of copper (*German Pharmacopœia*) in the course of two days, giving a portion of it every two hours. Reduction of temperature to the extent of 2 deg. to 4 deg. Fahr. followed in from one to two days. Vomiting or diarrhœa does not contra-indicate its employment, and the copper does not appear to injure the stomach. Its mode of action is doubtful, Haehnle suggesting that it may act as an antiseptic.

25. *Pretorius on Pilocarpine in Scarlatinal Dropsy.*—Pretorius, in the clinic at Strasburg (*Jahrb. für Kinderheilk.*, 1881), has attempted to estimate the value of pilocarpine in the treatment of the dropsy and uræmia of scarlatinal nephritis, and has arrived at the following conclusions. 1. The hydrochlorate of pilocarpine often saves life when other known remedies fail. It should, however, only be resorted to in really obstinate cases. 2. When the dropsical symptoms begin to disappear under the influence of pilocarpine, this remedy should be discontinued, and other means used to maintain the action induced, as repeated administration of pilocarpine may cause too rapid absorption of the dropsical fluid, which may be followed by uræmia. 3. The respiratory organs are to be carefully watched after every administration of the pilocarpine, and its administration stopped, if any symptom of pneumonia present itself; for occasionally inflammation is set up in the lung by the action of the alkaloid on the circulation, and, possibly, also on the lung-secretion.

MATTHEW HAY, M.D.

MEDICINE.

RECENT PAPERS.

1. HEITLER.—Acute Dilatation of the Heart. (*Wiener Med. Woch.*, No. 22, 1882.)

2. WEISS.—On Diastolic Bruits. (*Wiener Med. Woch.*, No. 21, 1881.)

3. PRIBRAM.—Neurosis of the Vagus Nerve. (*Wiener Med. Woch.*, No. 22, 1882.)

4. BIZZOZERO.—The Diagnostic Signification of the Alveolar Epithelium of the Lung in Sputum. (*Centralbl. für Klin. Med.*, 1881, p. 529)

5. CHROSTOWSKI, B.—On a Case of Combined Small-Pox and Scarlatina. (*Gaz. Lekarska*, 1881, No. 53)

6. MOUTARD-MARTIN.—Statistical Results of Operation for Empyema.

7. STRÜBING.—Symptomatology of Cystic Degeneration of the Kidney in the Adult. (*Deutsches Arch. für Klin. Med.*, 1882.)

8. HUCHARD.—Sudden Death by Syncope in Enteric Fever. (*Gaz. Hebd. de Méd. et Chir.*, June 16.)

9. HERRMANN.—Goître, Cretinism, and Idiocy. (Friedreich's *Blät. für Gerichtl. Med.*, 1882, p. 128.)

1. *Heitler on Acute Dilatation of the Heart.*—After noticing the cardiac dilatation which gradually occurs when the compensation by hypertrophy for valvular disease ceases to be sufficient, Dr. Heitler says that he has also, in many cases, been able to diagnose an acute dilatation of the heart, occurring suddenly and disappearing as suddenly (*Wien. Med. Woch.*, 1882, No. 22). This acute dilatation, he says, can be diagnosed only by prolonged and careful physical examination. It may affect all the cavities or only one, the left ventricle or the left auricle alone, or only the right side of the heart. He records a case in which, from the physical signs, there was evidently dilatation of the right side of the heart, with great palpitation, anxiety, and cyanosis; the heart beating violently 200 times per minute, but giving a very weak pulse. Within five minutes, when he wished to demonstrate this condition, it had disappeared along with the symptoms. The patient had mitral insufficiency and stenosis, and suffered frequently from such attacks. Dr. Heitler believes that acute dilatation frequently occurs in the early stages of fevers, in endocarditis, anæmia, and Bright's disease.

2. *Weiss on Diastolic Bruits.*—Following up his account of three cases of diastolic bruit heard over the heart's apex, and in the third and fourth left intercostal spaces at the sternal border, yet without *post mortem* appearances to account for the symptoms, Dr. Weiss publishes a carefully observed case (*Wien. Med. Woch.*, No. 21, 1882), in which there was a distinct diastolic bruit, audible only over the heart's apex. With this exception, the physical examination of the heart gave normal results. The patient died of pyloric cancer, and the *post mortem* examination showed recent endocarditis and pericarditis, too recent, Dr. Weiss believes, to account for the murmur which had been observed for several weeks. There was also, however, old endocarditis on the mitral valve, with consecutive contraction, and aneurysmal projections with their convexities into the auricle. Dr. Weiss believes these projections to have been the cause of the diastolic murmur, and points out that a diastolic murmur, heard over the heart's apex, without other signs of cardiac and circulatory disturbance, may be regarded as 'accidental', as having for the cardiac functions no important meaning.

3. *Pribram on Neuroses of the Vagus Nerve.*—Professor Pribram of Prague records (*Wien. Med. Woch.*, No. 21, 1882) the following case. A young woman, aged 30, had for a number of years been troubled with palpitation of the heart, coming on after mental excitement. In December of last year, during such an attack, the pulse rose rapidly to 200, but was regular and small. Respiration was regular; the face pale. The patient would not remain in bed, and during five days the pulse remained between 220 and 240. Respiration, appetite, and sleep, were normal. Two days later, the pulse rose to 300, dicrotic, and scarcely perceptible. The veins of the neck were dilated; the heart-sounds were replaced by low-pitched murmurs; fine crepitation was heard at the bases of both lungs. The patient had an indescribable feeling of faintness; it seemed as if something must give way in the neck, when suddenly the pulse sank to the normal. Notwithstanding the great fall of the arterial pressure during the attack, there was no diminution in the secretion of urine, and there was no albumen in the urine. In almost all previously recorded cases of tachycardia, there has been combined bronchial asthma; here there was no affection of the lung whatever. In cases of paralysis of the vagus, anatomical alterations have been found, the nerve, for example, involved in cheesy glands. Here, from the sudden disappearance of the symptoms, there could be no question as to this. The inhibitory influence of the vagus seemed to pass to the heart once more, almost as it a stop-cock had been opened. Digitalis and faradisation of the vagus had no beneficial effect. Towards the end of the attack, the voice was hoarse, indicating affection of the recurrent laryngeal nerve.

4. *Bizzozero on the Diagnostic Signification of the Alveolar Epithelium of the Lung in Sputum.*—The large granular epithelium that appears in sputum, the writer considers undoubtedly proceeds from the alveoli (*Centralb. für Klin. Med.*, p. 529, 1881). He recalls the fact that in the alveoli there are two distinct kinds of epithelium, viz., broad squamæ, and smaller, but thicker, and more granular cells. It is the latter class that undergoes rapid proliferation in inflammation, the other remaining unaltered. And it is the latter class that appears in the sputum. When present in large quantity in abundant sputum, they form a bad symptom; as indicating a general catarrh of the alveoli, but, if in small quantity, they have no significance. JAMES ANDERSON, M.D.

5. *Chrostowski on a Case of Combined Small-Pox and Scarlatina.*—The author relates (*Gaz. Lekars.*, 1881, No. 53) an interesting instance of synchronous occurrence of small-pox and scarlet fever in a patient aged 19. On the fifth day after scarlatina had been diagnosed, red spots and papules appeared over the face, upper extremities, hard palate, and other regions which remained free from scarlatinous rash. The temperature immediately fell from 105.5 deg. to 103.6 deg. For some days new papules continued to appear, always selecting, with mathematical preciseness, not scarlatinous spots. The transformation of papules into pustules coincided with desquamation of the scarlatina eruption over the trunk. Afterwards, the course of the small-pox was regular and generally mild. Four weeks later, the patient left cured. There was no albuminuria.

6. *Moutard-Martin on the Statistical Results of the Operation for Empyema.*—M. Moutard-Martin remarks that two forms of suppurative pleurisy must be distinguished; 1. sudden suppurative pleurisy, or subacute suppurative pleurisy; 2. suppurative pleurisy following serous pleurisy, either before any surgical operation or after thoracentesis. 1. Sudden suppurative pleurisy may be diagnosed even before effusion (as in a case quoted by M. Moutard-Martin at the Paris Hospital Medical Society) by the extreme acuteness of the commencing symptoms, the pain in the side, anxiety, and fever. In this case, thoracentesis must be performed as soon as effusion shows itself. Four examples are related of recovery after a single evacuation of 220 grammes (7.75 ounces), 300 grammes (10.5 ounces), 350 grammes (12.75 ounces), and 370 grammes (13 ounces) of well-defined pus. Should the case be reproduced after thoracentesis has been done twice, and should there be persistence of the febrile symptoms, there must be no hesitation in performing the operation for empyema. Nine cures without a single failure are recorded. They recovered very rapidly. In one

case in twenty-three days, in another in twenty-seven days, and in another in twenty-eight days. In all these cases, M. Moutard-Martin says there was complete cicatrisation without fistula at the time mentioned. 2. In suppurative pleurisy consecutive on serous pleurisy, the treatment must be commenced by successive punctures, which frequently suffice to produce cure. But if, after the evacuation of a small quantity of purulent or sero-purulent fluid, the flow be impeded by false membranes, the operation must be performed immediately, and then issue is frequently given to enormous quantities of pseudo-membranous masses. Again, if the liquid be reproduced rapidly after thoracentesis, and if the improvement which ensues do not last long, the operation must be performed. V. IDELSON, M.D.

7. *Huchard on Sudden Death by Syncope in Enteric Fever.*—In the *Gazette Hebdom. de Méd. et de Chir.*, of June 16, 1882, is a paper on sudden death in enteric fever from failure of the heart. It is stated that all references to authorities on this subject, with the theories as to causation, are to be found in a paper by M. Huchard, published in the *Union Méd.* in 1877. The case which serves as the subject of the article is, in the absence of all mention of confirmation of diagnosis by *post mortem* examination, of a rather vague nature. A woman, aged 35, 'took cold', on Feb. 22, at a theatre, and had, thereafter, an attack of 'bowel complaint', which readily yielded to treatment. She was sufficiently well by the 27th to preside as hostess at a large dinner party; was worse on the 28th. After passing a good day on March 3, being then able to receive visitors and talk incessantly, she died suddenly on the morning of the 4th, after asking for something to drink. All through the attack, the temperature is said never to have exceeded 38.2 Cent. (100.75 Fahr.), nor the pulse 96. [Attention is drawn to the fact that death from heart failure is rare in enteric fever so early as in this case; but of what else do enteric patients die in the early stages? Early deaths do occur, though rarely; but we doubt if the patient would show such symptoms as in the case in question. We quite agree with the writer in his surprise at the sudden and unexpected termination of the case, but fail to see how he can call the disease 'typhoid', unless he saw the bowel. If he did see it, he has forgotten to say so—a rather serious omission.—*Rep.*] F. TWINING.

8. *Strübing on the Symptomatology of Cystic Degeneration of the Kidney in the Adult.*—Communications on this subject are rather scarce in medical literature; clinical observations are rare, but *post mortem*, accidentally, numerous examples are found, symptoms indicative of which have not been noticed during life. In other cases, phenomena similar to those of chronic Bright's disease precede the fatal exit of the patient, or symptoms pointing to some form of renal lesion have been noticed, but passed over as unimportant. A case related by Strübing (*Deutsches Archiv für Klin. Med.*, 1882) was that of a woman aged 51, who had been in very good health until her forty-first year, in which hæmaturia with pain in the region of the kidneys was followed by progressive marasmus. Nothing beyond hypertrophy of the left ventricle and enlargement of both kidneys could be made out, and albumen was only temporarily present now and again. At the *post mortem* examination, it was found that, instead of the carcinoma it was expected to reveal, the enlarged kidneys had undergone a total change of structure, being about 20 centimètres (7.8 inches) long, and containing numerous large and small cysts, some of the size of a hen's egg. The contents, on analysis by Baumstark, were found to consist of—1. cholcasterin; 2. two albuminous bodies, namely, serum-albumen and a globuline; 3. six grammes of urea to every 100 cubic centimètres of the fluid. Uric acid, leucine, and tyrosine were not present. F. W. ELSNER.

9. *Hermann on Goître, Cretinism, and Idiocy.*—Dr. Hermann contributes a memoir on this subject (Friedreich's *Blät. für Gerichtl. Med.*, 1882, p. 128), and arrives at the following conclusions. 1. Although poor living, badly ventilated dwellings, improper clothing, etc., may influence the development of these diseases, they cannot actually produce them. 2. There is no connection between the number of marriages between blood-relations, and the number of instances of cretinism. Marriages between blood-relations appear rather to diminish than to increase the tendency already present of producing cretinism. On the other hand, idiotism may be, and appears to be, produced by such marriages; *e.g.*, Howe records seventeen cases of marriages between blood relations producing 95 children, of whom 45 were idiots, 12 scrofulous, 1 deaf, and 1 dwarfed. 3. Cretinism is never uniformly manifested in a locality, but is developed at varying times in certain streets, or houses, and that it becomes active at the time when the human organism is not yet fully developed. 4. The hereditary character of the malady is in certain cases undoubted. 5. In the case of cretinism in the children of healthy parents, there must be a direct specific alteration of the germs by the deleterious matter, without any change occurring in the parents themselves. They are, so to speak, the vehicle for the peccant material. On the other hand, it appears that, when the disease has once appeared in a family, a specific tendency thereto can be traced in the descendants. Even if this tendency have been latent for a time, it often reappears in consequence of some either normal physiological cause, or some newly developed pathological irritation.

THOS. STEVENSON, M.D.

SURGERY.

RECENT PAPERS.

1. HOLT.—True Aneurism of the Brachial Artery. (*Amer. Jour. of Med. Sciences*, April 1882.)

2. GROSCH.—Resection of the Hip. (*Centralbl. für Chir.*, No. 14, 1882.)

3. PARKER.—Reunion of Divided Nerves by Suture. (*The Med. News*, May 13.)

4. LUCAS.—Collection of Cerebro-Spinal Fluid beneath the Scalp, following Fracture of the Skull. (*Guy's Hosp. Rep.*)

5. MOSETIG-MOORHOF.—On the Question of Iodoform Poisoning. (*Centralbl. für Chir.*, 1882, No. 11.)

6. TAYLOR.—The Abortive Treatment of Buboes with Carbolic Acid. (*Amer. Jour. of Med. Sciences*, April.)

7. THOMAS.—Removing Benign Tumours of the Breast without Mutilation. (*New York Med. Jour.*)

8. RICHET.—On Unreduced Dislocations. (*France Méd.*, 1st April 1882.)

9. FALKENHEIM.—Suture and Union of Nerves. (*Deutsche Zeit. für Chir.*, Band xvi.)

10. SCHEDE.—On Iodoform. (*Centralbl. für Chir.*, 1882.)

11. FERRINGER.—True Spermatorrhœa in an Old Man after Severe Injury to the Spinal Cord. (*Berl. Klin. Woch.*, No. 43, 1881.)

12. KITAEVSKY, M. K.—Gummatous Affection of the Patella and Knee-Joint. (*Vratch*, 1882, No. 6, pp. 86-89.)

13. TEPLIASHIN.—On a Case of Gangrene of the Scrotum caused by Cold. (*Vratch*, 1882, No. 6, p. 93.)

14. TEPLIASHIN.—Case of Rupture of the Penis in a Boy. (*Vratch*, 1882, No. 6, p. 93.)

15. ALEXIEFF.—On a Case of Abscess of the Brain. (*Vrach. Vedom.*, 1882, No. 8, p. 3011-12.)

16. IVANOFF, T.—Case of Foreign Bodies in the Alimentary Channel. (*Vrach. Vedom.*, 1882, No. 13, p. 3101.)

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1. *Holt on True Aneurism of the Brachial Artery.*—Dr. L. Emmett Holt has recently recorded (*Amer. Jour. of Med. Sciences*, April 1882) a case of true aneurism of the brachial artery in its upper third, which was cured by compression maintained for ten hours by means of a conical pad. The patient was a labourer, aged 36, who discovered a pulsating tumour in the right arm, about four weeks before he came under the notice of the author. His attention had been directed to this tumour shortly after he had been at work shaking some carpets. There was no distinct history of syphilis, and a careful examination of the heart was made without detecting any organic disease. Active treatment was resorted to on the following day. Digital compression was first thought of, but was given up, and the following contrivance resorted to. A piece of splint board was cut, about a foot and a half long, and three inches wide at one end, tapering to half an inch at the other. The latter was padded, so that a hard ball was formed about three fourths of an inch in diameter. The patient was placed at the edge of the bed, and his arm, stretched out at a right angle to the body, rested upon a table. The surgeon or his assistant, seated in front of the patient, rested the broad end of the splint board against the front of his shoulder, whilst the small and padded end was placed upon the brachial artery near the patient's axilla. With one hand the surgeon steadied this and kept it in position, while his other hand was kept on the tumour, to make sure that the arterial pulsation was completely controlled. This pad was applied on June 1 at 10.40 A.M.; the treatment was continued during the day by assistants, who relieved each other at intervals of from half an hour to an hour. No pulsation was noticed after five o'clock. At nine at night no bruit could be detected, and the tumour was hard and firm. A hard pad was now placed in the axilla, and the arm bandaged to the side. The patient recovered, without there having been any sign of relapse. In January last, Dr. Emmett Holt examined the patient, and was unable to make out any tumour. After a careful search through the literature of the subject, Dr. Emmett Holt has collected thirteen other cases of brachial aneurism of supposed spontaneous origin. In some of these cases, slight exciting causes are stated to have been noted; but the author is not disposed on this account to exclude such cases from the number, as there are few surgical diseases, he says, which are not attributed by the patients to some antecedent strain or fall. In three only of the fourteen cases was the aneurism situated in the upper third of the arm. In six cases, nearly one half of the whole number, the tumour appeared at the bend of the elbow. In five cases no assignable cause of the aneurism could be made out, whilst in six there was a history of some strong muscular effort or a blow. Dr. Holt's patient had used a crutch on the right side for thirty years, in consequence of distortion of the right lower limb after articular osteitis affecting the knee; but the author is not prepared to admit this as the cause of the arterial degeneration in his case. In eight of the fourteen cases, the ligature was applied with ultimate success. In two of four cases in which the vessel was tied close to the sac within two or three inches, secondary hæmorrhage followed. The Hunterian operation was performed in two cases, in one of which suppuration of the sac resulted. Compression was tried in nine cases, with success in four, and failure in five. Of the unsuccessful cases, four were afterwards cured by the ligature. Of the four successful cases, digital compression alone was applied but in one. Dr. Holt states that aneurisms situated at the bend of the elbow, or just above this region, can be easily managed by pressure or by the ligature. The real difficulties in the treatment of brachial aneurism are encountered when the tumour is situated in the middle or upper third of the artery. Broca held the opinion that aneurism of the upper third of the brachial artery called for ligature of the axillary, and that pressure could not be applied on account of the proximity of the large nerve-trunks.

2. *Grosch on Resection of the Hip.*—Dr. J. Grosch, in a recently published dissertation, an abstract of which is given by Dr. A. Bidder in the *Centralbl. für Chir.*, No. 14, 1882, has arranged in tabular form 166 collected cases of resection of the hip, treated antiseptically. In this return information is afforded of the condition of the joint in each case at the time of operation; and in each of the two main tables, one of recoveries, the other of fatal cases, there are three subdivisions, distinguishing three different stages of the disease. The first subdivision includes those cases in which the changes in the joint are slight, and the small quantity of the pus has not yet made its way to the surface; the second includes cases in which there is much suppuration and sinuses have been formed; whilst in the third we have cases of much exhaustion of the patient through prolonged discharge and very extensive destruction of the affected parts. Some difficulty, however, has of course been experienced in arranging so many cases in sharply defined groups. In addition to the tables of recoveries and deaths, there is one of incomplete recoveries and cases still under treatment, reference being made in this to the prognosis of each case. Of 120 completed cases, forty-four were fatal, showing a mortality of 36.7 per cent. This accords with other recent statistics, while Leisrink's returns of cases treated in the pre-antiseptic period show a mortality of not less than 64 per cent. With regard to the causes of death after antiseptic resection of the hip, Grosch's tables show that there is a much reduced risk of accidental traumatic affections, and that in a very large percentage of cases the fatal result is due to extension of tuberculosis to the organism. It follows from this, that the surgeon should be careful in his selection of cases for operative interference, and choose in preference those in which the joint is the only seat of the tubercular disease. If the cases in which the hip has been resected under antiseptic precautions be arranged in two groups, one of these groups including cases treated from 1870 to 1875, the early and, so to speak, the probationary period of antiseptic treatment; the other group, those treated during the past six years, during which the technical details have been perfected; it will be found that in the latter group the mortality has diminished by about 9 per cent. It is shown in Grosch's tables that the mortality is much less in children than in adults; with the former, there is no death after operation for disease in the first stage; in the second

stage of the disease the mortality in children is 24 per cent.; in the third stage 67.5 per cent. With regard to the duration of treatment, there is no striking difference in any of the three stages. Antiseptic resection, as compared with the operation in former times, does not seem to influence the subsequent mobility and the extent to which the functions of the affected limb are restored. One interesting fact shown by this collection of cases is, that with perforation of the acetabulum, the mortality of the operation is increased by about 20 per cent. Dr. Grosch has drawn the following conclusions from his tables. 1. Under the protection of the antiseptic method, the mortality of resection of the hip has been reduced by about one-half. 2. The death-rate is much lower in the second than in the first period of the antiseptic treatment. 3. The prospects of success from resection of the hip are the better, the earlier the operation is performed. 4. The duration of treatment is considerably diminished after the antiseptic operation. 5. The most frequent cause of death after the operation in recent cases has been tuberculosis. 6. The antiseptic method affords a great protection against traumatic complications after resection of the hip. 7. The functional results of resection of the hip, though yet satisfactory, have not been much improved by the antiseptic method. 8. The rate of mortality from the operation is higher in adults than in children.

3. *Parker on Reunion of Divided Nerves by Suture.*—In an annual address delivered on April 25 to the South Carolina Medical Association (*The Med. News*, May 13, 1882), Dr. F. L. Parker, of Charleston, gave the statistics of all the cases he had been able to find on record of primary and secondary reunion of divided nerves by suture. Twenty-three cases in all of reunion of nerves, it is stated, have been reported; twenty-one by suture; and two by simple apposition. Of these, twelve have been successful, two partially successful (sensation, but not motion, restored), four incomplete, and five unsuccessful. Of the twenty-one cases of reunion by suture, six were primary, and fifteen secondary. Of the six primary, two were successful, two were incomplete, and two unsuccessful. Of the fifteen secondary, six were successful, three incomplete, and six unsuccessful. In five cases the sutures were passed through the sheath, in three through the substance of the nerve, and in thirteen it is not stated how they were passed. The secondary operations were performed from one to nine months after the injury, and in one case two years after, but in the last unsuccessfully. Failure in cases of secondary operation depends, according to Dr. Parker, upon several contingencies, which cannot be foretold prior to exposing the nerve. Among these are mentioned: 1. The degree of atrophy of one or both ends, particularly the distal end, preventing their adequate adjustment; 2. The length and size of the neuroma on one or both ends, requiring a sacrifice of nerve-tissue, and complicating apposition by forcible stretching or wide dissection; 3. Atrophy of the neurilemma, forcing the operator to apply sutures through the substance; 4. Neuritis or sclerosis of the distal or central end; 5. Mutilation of the nerve-ends after resection, often unavoidable; 6. The manner of healing of the wound and the degree of suppuration. Dr. Parker then gave the history of a case which had been under his own care. In this, a case of paralysis of the extensor muscles of the hand and forearm, from division of the posterior interrosseous nerve, there was complete recovery after resection and reunion of the ends of the divided nerve by carbolised catgut.

4. *Lucas on Collection of Cerebro-Spinal Fluid beneath the Scalp, following Fracture of the Skull.*—A boy, aged twenty-three months, was on July 24th, 1878, admitted into the Evelina Hospital with a recent injury to the head through a fall. He was quite unconscious, and remained so until the following morning. During the night, there were frequent convulsive movements. The whole of the forehead was much bruised and swollen, more especially on the left side, and the left upper eyelid was extensively ecchymosed, of a deep claret colour, and too much distended to be raised. There had not been any discharge of blood or fluid either from the ears or nostrils, and there was no paralysis. The patient progressed favourably from the date of admission with regard to his general condition. On July 31, hard ridges, indicating a line of fracture, could be felt on the forehead and scalp, extending backwards to the anterior fontanelle. The swelling of the forehead, which had previously diminished very much, began on August 9 to increase again and on the evening of that day became of considerable size. With a hypodermic syringe, about twenty minims were drawn from this swelling, of a clear, slightly alkaline fluid, containing a few small flakes. On the following day it was found that the tumour pulsated, and that it varied in size, increasing when the child screamed. A ridge of bone could be felt through the swelling, commencing about the middle of the left supra-orbital ridge, and ascending irregularly on the forehead somewhat to the right as far as the scalp; it then crossed the median line and extended about half-an-inch to the right and beyond the fontanelle. Another ridge could be felt, ascending at first vertically from the left orbit, then inclining slightly to the right to join the fontanelle on the left side. A long narrow depression could be felt between the ridges broader above than below. On August 17, the swelling on the scalp had almost disappeared. On September 17, nothing of importance having for a month been noticed in the child's condition, the child was discharged from the hospital. The swelling up to that time had varied from time to time, and was especially influenced by crying. A large gap was still to be felt in the frontal bone, extending from above the left orbit towards the fontanelle. On November 10, 1879, a year and three months after the occurrence of the accident, the child, who had not during the interval suffered from fits, nor from any symptoms that could be attributed to injury of the brain, was bright, intelligent, and in ordinary health. There was no longer any swelling of the forehead, but a large fissure could still be plainly felt. The patient was again seen on February 16, 1881, and up to this date had apparently suffered no inconvenience as a result of the accident. This case, which is recorded by Mr. R. Clement Lucas in the last volume of *Guy's Hospital Reports*, adds a fourth to those already recorded, in which, after a severe simple fracture of the skull, a large tumour of cerebro-spinal fluid appeared beneath the scalp. One of these previous cases was reported by Mr. Lucas in 1876, another by Mr. Erichsen, and the fourth by Mr. Haward. The subjects of these cases were all young children, and in each instance a fall from an upper storey was the cause of the fracture. As injuries of the head in adults are never followed by collection of cerebro-spinal fluid beneath the scalp, an easy deduction, Mr. Lucas states, may be drawn, that the elasticity and

thinness of children's skulls permit or determine the injury upon which this rare phenomenon depends; whereas in adults the strong and firmly ossified calvarium cannot be driven in to a like extent without an accompanying laceration of the scalp. Hence similar injuries in adults are compound, and may be followed by the escape of cerebro-spinal fluid through the wound, but never, so far as recorded cases indicate, by collections beneath the scalp. Mr. Lucas thinks that in cases of this kind some wound of the ventricular cavity exists. In his first case there was complete evidence that the tumour had communicated with the lateral ventricle, the descending and posterior cornu of which had become dilated into a large cavity, and it is supposed that in the second case the anterior cornu had been wounded. Mr. Lucas concludes by stating 'that though it may be premature to state that in every case where watery fluid escapes from the vertex, the ventricular cavity has been laid open; yet all *post mortem* evidence seems to point to this conclusion, whilst the view that the fluid escapes from the subarachnoid space rests only upon conjecture.'

W. JOHNSON SMITH.

5. *Von Mosetig-Moorhof on Iodoform Poisoning.*—The observations of Dr. von Mosetig-Moorhof (*Centralbl. für Chir.*, 1882, No. 11) on this subject will be read with interest in connection with those of other observers recorded in a late number of the LONDON MEDICAL RECORD, since they represent the results of a vast field of experience. Having used the remedy in carrying out the Listerian treatment in about 3,000 in-patients and about 4,000 out-patients, he has never yet met with a single case of iodoform poisoning. The writer explains this fact in various ways. 1. He has never employed the drug in large quantities. 2. The iodoform was never subjected to pressure within a wound. 3. The dressings were only rarely changed. 4. The wounds were never washed in dressing, in order to introduce fresh iodoform, 'since, as is well known, absorption takes place more rapidly in granulating than in fresh wounds.' 5. From the very beginning of the treatment only perfectly pure materials were used, *i.e.*, without the addition of any other antiseptic. The use of carbolic acid in conjunction with iodoform, he regards as not only damaging, but dangerous, since the carbolic acid is always liable to act irritatively upon the kidneys, and may thus hinder the due excretion of the iodine set free within the body, and give rise to its accumulation in the blood.

E. CLIFFORD BEALE, M.B.

6. *Taylor on the Abortive Treatment of Buboes with Carbolic Acid.*—Dr. Morse K. Taylor, U. S. Army, in the April number of the *Amer. Jour. of the Med. Sciences*, publishes a paper on the abortive treatment of buboes by injections of carbolic acid. He reports twenty cases in which he certainly obtained remarkably successful results, and he states that within the last seven years he has treated nearly one hundred and fifty cases of various forms of lymphadenitis, arising from specific and non-specific causes; and, where he saw the cases before the formation of pus was well established, he had not failed to arrest the process immediately, and allay the pain in a few minutes. His method is to inject from ten to forty minims of a solution, containing eight or ten grains to the ounce, directly into the interior of the inflamed gland.

7. *Thomas on Removing Benign Tumours of the Breast without Mutilation.*—Dr. G. Thomas (*New York Med. Jour.*) expresses himself in favour of removing benign tumours of the breast as a rule, because the mere presence of a tumour in the breast usually renders the patient apprehensive, nervous, and often gloomy, while, with our present improved methods of operating, the patient is exposed to slight risks, the danger of growth of the tumour is removed, and with this disappears, at the same time, that of the subsequent degeneration of a benign into a malignant growth. If, in addition to these advantages, we can add the avoidance of all mutilation to the person, we have strong grounds for departing from the practice of non-interference. The method of operation described, Dr. Thomas has practised thus far in a dozen cases. He distinctly states that it is entirely inappropriate for tumours of malignant character, and that it is applicable neither to very large nor to very small benign growths, being insufficient for the former and unnecessarily radical in its character for the latter. The growths for the removal of which he has resorted to it have been fibromata, lipomata, cysts, and adenomata, and have varied in size from that of a hen's egg to that of a duck's egg, or a little larger. The operation is thus performed. The patient standing erect and the mamma being completely exposed, a semicircular line is drawn with pen and ink exactly in the fold which is created by the fall of the organ upon the thorax. This line encircles the lower half of the breast at its junction with the trunk. As soon as it has dried, the patient is anæsthetised, and with the bistoury the skin and areolar tissue are cut through, the knife exactly following the ink-line until the thoracic muscles are reached. From these the mamma is now dissected away, until the line of dissection represents the chord of an arc extending from extremity to extremity of the semicircular incision. The lower half of the mamma which is now dissected off is, after all ligature of bleeding vessels, turned upward by an assistant and laid upon the chest-walls just below the clavicle. An incision is then made upon the tumour from underneath by the bistoury, a pair of short vulsella forceps is firmly fixed into it, and, while traction is made with it, its connections are snipped with scissors, the body of the tumour being closely adhered to in this process, and the growth is removed. All hæmorrhage is then checked, and the breast is put back into its original position. Its outer or cutaneous surface is entirely uninjured, and the only alteration consists in a cavity at the former situation of the tumour. A glass tube with small holes at the upper extremity and along its sides, about three inches in length and about the size of a No. 10 urethral sound, is then passed into this cavity between the lips of the incision, and its lower extremity is fixed to the thoracic walls by adhesive plaster, and the line of incision is closed with interrupted suture. In doing this, to avoid cicatrices as much as possible, very small round sewing-needles are employed; these are inserted as near as possible to the edges of the incision, and carry the finest Chinese silk. The line of the incision is then covered with gutta-percha and collodion. If the glass drainage-tube act perfectly, there is no offensive odour in the discharge, and the temperature does not rise above 100 deg.; the tube is in no way interfered with until the ninth day, when the stitches are removed. If, on the other hand, the tube does not appear to perform its function satisfactorily, it is manipulated so as to cause it to drain all parts of the cavity, and warm carbolised water is freely injected through it every eight hours.

On the ninth day, when the stitches are removed, the tube is removed likewise.

8. *Richet on Unreduced Dislocations.*—Professor Richet, in a lecture on clinical surgery, reported in the *France Méd.*, 1st April 1882, points out the various conditions in which old dislocations exist, and the method to be followed in order to reduce them. In old dislocations, the muscles which surround the injured joints are partly atrophied, sometimes even they are absolutely paralysed; in all cases they are weakened or powerless. In recent dislocations, on the contrary, the muscles are contracted and resist vigorously the efforts of the surgeon. How does it then happen that recent dislocations, notwithstanding the resistance of the neighbouring parts, should be easier to reduce than old dislocations which are surrounded by atrophied muscles, and offer no resistance? The cause of these difficulties and differences is to be found entirely in the adhesions which in the old dislocation have been set up between the displaced head of the bone and the neighbouring parts. Thus, before attempting to reduce these kinds of displacement, it is necessary to break down the fibrous tissues which fix down the head of the bone in its abnormal position, and to mobilise it. This is done by moving the limb about in various directions. It is only subsequently to this that the surgeon will attempt to reduce the fracture by performing traction, which should be made with an expenditure of a certain strength and the greatest attention.

9. *Falkenheim on Suture and Union of Nerves.*—Dr. Falkenheim (*Deutsche Zeit. für Chir.*, Band xvi, Heft 1 and 2) says that Arnemann, in 1787, was the first to experimentalise on the suture of nerves, but was unsuccessful. Flourens, in 1820, was the first to take up the subject again; and he restored function by uniting the stumps of two different nerves. Eulenburg, Landois, and others, got no results. In fact, experimental pathology could not succeed in deciding the question as to the justification of suture of nerves, whilst surgery, in the hands of Laugier and Nélaton, quickly answered it. Each had in 1864 a case of injury to the median nerve under treatment, and, on stitching the nerve, the current was restored in a few days. Unexpectedly, however, light was thrown on the subject by Richet, who, in 1867, had a case of injury to the median nerve under treatment, which proved undoubtedly that division of a nerve did not completely suspend all nervous influence in the district of the divided nerve. Sensibility had remained, even in Nélaton's case, before the nerve was united. Arloing and Tripier proved that Richet's observation was correct, by showing numerous anastomoses between peripheral nerve-branches; and they referred the sensibility of the peripheral nerve-stump to sensory fibres going backwards. Létiévant had preceded their work, however, by his doctrine of *motilité et sensibilité supplées*, which he had applied to explain a whole series of cases in which previously nervous regeneration had been supposed to have taken place. He came to the conclusion, supported by numerous experiments, that, notwithstanding division of a nerve, according as it is sensory, motor, or mixed, its region of distribution preserves its individual function (more or less weakened of course), thanks to the action of muscles and nervous apparatus independent of the injured nerve. These *fonctions supplées* may gradually become as healthy as before the trunk was injured. Falkenheim believes this theory has been proved often enough; actual restoration of a paralysed part does not, of course, take place in these *fonctions supplées* but very nearly, the part of the paralysed muscles being taken by those by which they were strengthened when they were in a healthy state. The possibility of a restoration of nervous current Létiévant allows, but only after a year has passed, and later perhaps; fibres growing from the central to the peripheral end (*régénération*). Primary and secondary suture of nerves should always be carried out; the latter, in old cicatrised injuries, being performed by exposing and freshening the divided, partially incarcerated ends. Amongst experimenters, Gluck has had the best results. He did a neuroplastic operation on a chicken by removing a piece of its sciatic nerve, and replacing it by a piece three centimètres long from a rabbit's sciatic, and had astonishing success. The author did not succeed in restoring the nerve-current in his cases of suture of the sciatic and vagus nerves (twenty-three experiments); he therefore altered his method, and after dividing a nerve left the ends in apposition, but without stitching them together, and operated thus on twelve rabbits, making the interesting observation that they were all able to run about, notwithstanding the interruption to the nerve-current in the sciatic, the passive action of the extensor communis digitorum pedis being the sole and only reason thereof. These experiments also gave a negative result; but the author concludes that, no matter what may take place, it is right to unite the ends, as repair is thereby hastened. The human organism is quite indifferent to the operation, direct or indirect, especially under the use of Listerism, as proved by the thirty-nine cases quoted by the author. The chief use of it is to prevent union of the ends of the nerves with the tissues, and, by shortening the space, to hasten the resumption of nervous conduction. In recent injuries suture is a duty, the indirect method being preferable if possible. Should the tissue beyond the nerve have suffered, and there be too much strain, the direct method must be chosen, needles and sutures of the finest calibre being used to prevent much interference. Bruised portions must be removed, as they degenerate. and the limb must be fixed immovably in the position causing least tension to the ends of the divided nerves. Neuroplastic transplantation requires further experiment. F. William Elsner.

10. *Schede on Iodoform.*—Schede (*Centralbl. für Chir.*, No. 1, 1881), in the hospital at Hamburg, has, in common with many German surgeons, made extensive use of iodoform as a substitute for carbolic acid in the antiseptic treatment of surgical cases. His experience leads him to conclude that, while it acts as a powerful antiseptic, it in many cases produces powerful toxic effects from absorption. These often are developed very suddenly, and appear to be of a cumulative character, and may occasionally end in the death of the patient. This is important, as it is not generally known that iodoform can act so poisonously when applied externally. Indeed, it is commonly believed to be almost innocuous. Schede gives a classification of the various degrees of its toxic effects which he has observed. Slight impairment of general sensibility is extremely frequent, accompanied by a small elevation of temperature. In other cases, there are great depression of spirits, headache, and loss of appetite, along with a rapid pulse. Sometimes the pulse-rate mounts to 150-180 per minute, and the temperature may or may not be febrile. The most dangerous form of the poisonous

action of iodoform is witnessed in those cases where the brain is greatly affected, in the form either of acute meningitis, or of mental aberration. Rapid pulse, vomiting, convulsions, and profound coma, terminating in death, may ensue, even if the application of the iodoform have been discontinued on the first appearance of the symptoms. The author advises that iodoform should not be applied to fresh wounds if at all extensive, nor should it be injected into large abscesses. As an application to small recent wounds, especially if superficial, and to granulating surfaces, he has rarely found that bad general effects follow. He states that it is as strongly and as certainly antiseptic as the more complicated and less convenient Listerian treatment.

11. *Fürbringer on a Case of True Spermatorrhœa in an Old Man after Severe Lesion of the Spinal Cord.*—The patient, aged 69, was affected, in consequence of a fall, with paraplegia and anæsthesia of the lower extremities and of the lower part of the abdomen, and also with paralysis of the bladder (*Berlin. Klin. Woch.*, No. 43, 1881). Thirty hours after the accident, erection of the penis occurred, and from this time until death (on the third day), the urine drawn off by the catheter contained numerous spermatozoa, and there was a constant discharge of fluid containing spermatozoa. *Post mortem* examination showed fracture of the arch of the eighth dorsal vertebra, luxation of the third dorsal vertebra, with complete disintegration of the spinal cord at the level of the fourth vertebra, fracture of the sternum, and rupture of the pleuræ. The genital organs were healthy.

12. *Kitaëvsky on Gummatous Affection of the Patella and Knee-Joint.*—Dr. M. R. Kitaëvsky of St. Petersburg, details (*Vratch*, 1882, No. 6) two cases of this rare affection. In both patients (women aged 26 and 17), along with night-pains, cachexia, alopecia, swelling of the lymphatic glands, chronic periostitis and other characteristic signs, there were at first observed small tumours, which gradually softened and ulcerated in the centre. Simultaneously, serous exudation into the knee-joint took place. Under specific treatment by mercury and iodide of potassium internally, and mercurial plaster externally, both patients rapidly improved, and left hospital cured. [In the LONDON MEDICAL RECORD, February 1880, is reported an instance of syphilitic affection of joints. The literature of the question is to be found in Dr. Giess' paper in the *Deutsche Zeit. für Chir.*, 1881, vol. xv.—*Rep.*]

13. *Tepliashin on a Case of Gangrene of the Scrotum caused by Frost.*—Dr. Tepliashin of Glasoff records (*Vratch*, 1882, No. 6) the case of a patient admitted with gangrene of the scrotum, with temperature 104 deg. and delirium. The smooth satin-white scrotum was separated from the perineal and pudendal regions by a line of demarcation, no other parts being frost-bitten. The integuments and tunica dartos of the whole scrotum sloughed and were removed, after which the rough surface was dressed antiseptically. The temperature rapidly fell, and some days later granulations appeared. In six weeks cicatrisation was complete. Sloughing in this case appeared after the patient, scantily clad, one severely cold winter day, had driven home from a distant forest, sitting all the way astride a timber-tree.

14. *Tepliashin on Rupture of the Penis in a Boy.*—Dr. Tepliashin (*Vratch*, 1882, No. 6) narrates the following case as worthy of remark, not only because of some surgical particulars, but also because of the brutality of the Votiak population, among whom the author practises. A boy, ten years old was admitted, his penis being tightly tied up with a string, within an inch from the pubes. The urethra at the point of strangulation was ruptured, and urine dropped out of a fistulous opening. The portion of the penis in front of the ligature was hanging down, connected with the rest by a narrow bridge, and looking very pale and much swollen. As it was quite useless, and brought nothing but extreme discomfort to the patient, the author cut it away by small scissors at the strangulated spot. No vessel required tying. The author's investigation proved that the boy had been a victim of a brutal practical joke played on him a year ago at a marriage feast by some drunken Votiaks, who, to entertain the company, tied up the boy's penis as tightly as possible, and cut off the ends of the string near the knot.

15. *Alexieff on a Case of Abscess of the Brain.*—A peasant, aged 20, while hunting, was struck by a large splint from his burst gun, which entered into his frontal bone a little to the right side, above the glabella. After having recovered consciousness, he ran home, when he extracted the splinter. Profuse hæmorrhage and fainting followed. For the next four days he was well, but on the fifth day there appeared giddiness, general weakness, and frontal headache. On the tenth day after the accident, the temperature rose to 100.4 deg.; on the sixteenth, to 102.3 deg.; on the eighteenth, to 104.6 deg. On the twenty-fourth day, the patient died in a comatose state, having been unconscious for the last three or four days. He occasionally vomited during the last ten days. There were no convulsions, no paralysis, no affections of sight, hearing, smelling, or sensibility. *Post mortem* examination showed a hole (as large as a sixpenny-piece) in the frontal bone, leading into an abscess between the bone and the dura mater, and containing a large piece of bone. The latter closed an opening leading to another abscess in the substance of the brain itself, which occupied nearly the whole anterior portion of the right hemisphere, and was as large as a hen's egg.

16. *Ivanoff on Swallowing of Twenty Needles by a Child.*—A boy aged 3, while playing with a needle-case, had swallowed twenty needles (5 centimètres long). Five days later, sixteen needles were discharged *per anum*, glued together by fæces. The remaining four came out, one by one, on the sixth and seventh days. There were no symptoms, except occasional abdominal pain, and no treatment.

V. IDELSON, M.D.

PATHOLOGY.

RECENT PAPERS.

1. KOCH.—Pathogenic Organisms. (*Mittheil. der Kais. Gesundheitsantes*, 1881; *Rep. der Anal. Chem.*, 1882, Heft 1.)

2. HART, MRS. E.—The Function of Fibrin. (*Quarterly Journal of Microscopical Science*, July 1882.)

3. LANGOVOI, A.—Four Cases of Multiple Cirrhosis of Various Organs: Kidneys, Liver, Lungs, Heart, etc. (*Mediz. Obozr.*, Jan. 1882, pp. 37-45.)

4. VARGUNIN, V. A.—On the Artificial Production of Tuberculosis by Inhalation of Atomised Phthisical Sputa. (*Vratch*, 1882, No. 6, pp. 81-83.)

5. TARENEZKY, A.—Anatomy and History of Development of Cyclopia in Man. (*Mediziinskaia Bibliotheca*, April 1882, pp. 1-6.)

6. REGNE.—Hæmatic Crises in Acute Diseases, with Sudden Defervescence. (*Thèse de Paris*, 1881.)

7. DÉJÉRINE.—Gangrene of Nervous Origin. (*Le Prog. Méd.*, 1882, No. 6.)

8. ROTH.—Malformation in the Region of the Ductus Omphalo-Mesentericus. (Virchow's *Archiv*, Band lxxxvi.)

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1. *Koch on the Investigation of Pathogenic Organisms.*—This is the first communication by Dr. Robert Koch from the Imperial Board of Health in Berlin. Dr. Koch points out in the first place the objects he has set before himself in the observation of the lower organisms in relation to health, and gives his opinions on the methods of detecting pathogenic organisms. He describes the methods of observation by means of fluids and tissues, shows the importance of photographic representations, and discusses the transmission of pathogenic organisms. Dr. Koch considers that the old methods of cultivation in fluids are imperfect, and recommends cultivation on slices of boiled potatoes and on jellies of various kinds, that obtained by the coagulation of blood being used for pathogenic organisms. This latter medium being firm and also transparent, the successive cultivations can be controlled with the microscope, and only those used which remain free from impurity. The photographs have not been retouched, and, being thus absolutely trustworthy, add very largely to the value of the work. They present the organisms of erysipelas, endocarditis ulcerosa, anthrax, of decomposition in its numerous forms, of septicæmia, typhoid, pneumonia, and other forms occurring both in man and animals. Fourteen photolithographed plates accompany the essay.

JAMES ANDERSON, M.D.

2. *Hart on the Formation of Fibrin.*—By means of Dr. Norris's method of isolation, by subsequent fixing of the blood corpuscles (human and rabbit) on the cover-glass by the vapours of a two per cent. solution of osmic acid, and further by staining them with a concentrated solution (in alcohol) of nitrate of rosaniline, Mrs. Ernest Hart (*Quarterly Jour. of Microsc. Science*, July 1882) observed a peculiar change to take place in those red blood-corpuscles, which, in the process of manipulation, have lost their hæmoglobin, and which, therefore, represent the pale corpuscles of Dr. Norris. This change consists in the production of numerous finer or thicker, longer or shorter, branched or unbranched, filaments from, and at the expense of, the decolorised blood-corpuscles. These fibrils look like fibrin-fibrils, and their formation appears independent of currents in the fluid preparation. The appearances are not obtained if defibrinated blood (rabbit) is used. [Landois, in *Centrabl. für die Med. Wiss.*, 1874, describes the formation of threads, but after an entirely different method from the red blood-corpuscles; these threads he considered to be fibrin, but different from the fibrin formed in blood plasma.—*Rep.*]

E. KLEIN.

3. *Langovoi on Multiple Cirrhosis of the Kidneys, Liver, Lungs, etc.*—While carrying his researches upon primary cirrhosis of kidney in Professor Ostroumoff's clinic in Moscow, Dr. Langovoi (*Med. Obozr.*, Jan. 1882) met with a series of cases in which, side by side with the affection of the kidneys, there existed similar changes of the heart, liver, lungs, spleen, peritoneum, etc. The author gives a detailed clinical account of four such cases, adding some interesting results of the *post mortem* examination. The microscope revealed very extensive and profound alterations in the vessels of all organs investigated. They were these—1. Endarteritis obliterans, which either completely closed, or only considerably narrowed the lumen of the vessel; 2. Mesoarteritis, shown by an immense thickening of the muscular coat of the artery; and 3. Periarteritis, with hypertrophy of the adventitia, and formation of dense connective tissue radiating from the vessel in all directions. Besides these vascular changes, the kidney showed great increase of connective tissue, obliteration of the glomeruli, granular disintegration of the epithelium of the tubuli contorti; the liver, intense proliferation of the interlobular connective tissue; the uterus, hypertrophy of the fibrous tissue and atrophy of muscular fibres; the ovaries, cirrhosis, with atrophy of follicles; the spleen, enormous thickening of the trabeculæ, and an infarct, with a central vessel containing the organised thrombus; the submaxillary glands, hyperplasia of the connective tissue; the heart, very pronounced increase of connective tissue, and atrophy of the muscular elements, both in the papillary muscles and in the walls; the lungs, compression and narrowing of the alveoli, with great hypertrophy and leucocytic infiltration of the interstitial tissue. Discussing the question whether all those changes simultaneously affecting the organs of all kinds are only accidentally coincident, or produced by a common exciting cause, the author follows the teaching of Sir W. Gull and Dr. Sutton, and attributes the development of multiple cirrhosis of the viscera to primary arterio-capillary fibrosis. He found considerable vascular fibrosis, even where the changes of connective tissue in an organ were only slight and incipient. In his opinion, the decrease of blood-supply, resulting from the before-mentioned vascular alterations, necessarily leads to proliferation of connective tissue in the organs affected. There is as yet no experimental proof of this supposition (the author rejects Lewinski's experiments, see LONDON MEDICAL RECORD, Aug. 1880, as untrustworthy), but morbid anatomy supplies many facts in support of it; and the author quotes Martin's case, in which sclerosis of the posterior columns of the spinal cord was found exclusively within the region of vascular changes in the pia mater, while the parts of the spinal cord covered with healthy pia mater presented no morbid alterations.

4. *Varguuin on the Artificial Production of Tuberculosis by Inhalation.*—In the LONDON MEDICAL RECORD, May 1879, pp. 189-190, and October 1881, p. 422, there are to be found reports of Tappeiner's experiments on dogs, in which tuberculosis was invariably produced by means of inhalation of phthisical sputa. While Berteau, Lippl, and Reinstadter, by their own researches, fully endorsed Tappeiner's statements, Schottelius, after having repeated the same experiments, succeeded in producing only disseminated catarrhal pneumonic foci, but no tubercles. In addition, he found that the inhalation of atomised cheese and brain-substance furnished exactly the same results as that of phthisical sputa. Such a conflict of evidence led Dr. Vargunin (*Vratch*, 1882, No. 6) to undertake an investigation of the matter. He experimented on sixteen dogs, seven of which were made to inhale atomised phthisical sputa, one muco-purulent bronchitic expectoration from an emphysematous patient, four atomised mixture of Swiss cheese with water. Three dogs inhaled carbolised (2 per cent.) and boiled sputa, and one pulverised mixture of wheat-flour with water. All the cases furnished strictly identical results. In all

animals alike there was developed simple disseminated bronchopneumonia, caused by introduction of organic particles into the lungs, whether expectoration of a phthisical patient, or that of a bronchitic one, sputa fresh from the lung, or previously disinfected cheese or flour. Neither *post mortem* changes, nor the course of the disease, indicated that inhalation of phthisical sputa produced an infectious disease. Such was the general conclusion at which the author arrived. At the same time, he points out that the results furnished by inhalation of sputa in dogs fully support the now more and more spreading opinion (Weber, Fraentzel, Manassëin, Eichwald, and others), that prolonged breathing of the air impregnated by phthisical expectorations, is injurious to the health of persons nursing consumptive patients.

5. *Tarenezky on Cyclopia in Man.*—Dr. A. Tarenezky of St. Petersburg publishes in the *Mediz. Biblioteca*, April 1882, a very valuable and interesting paper on the anatomy and evolution of a typical monstrosity *per defectum*, called *cyclopia vel polyphemia v. synophthalmia v. monophthalmia cyclopica*, and characterised by the presence of a single orbit, which is situated on the median line, and encloses one developed eye, to which there are attached some rudiments of the other. The paper is based on careful and detailed examination of ten specimens of human cyclops, and on careful study of all cases scattered in the literature. The author refers to seventy-one papers on this subject, nine of them being English or American. The majority of cyclopes are born either at full term or not earlier than the sixth month of pregnancy. They are born dead, or die usually within a few minutes after delivery, seldom within a few hours. Caradec and Schœn, however, reported three cases in which cyclopes lived eight and nine days, and ten years. As to the sex of Dr. Tarenezky's nine cases (in the tenth the head alone was preserved), six were male and three female ; but of thirty-eight cases of other authors, twenty-seven were female and only eleven male. Hence almost two-thirds of all cyclopic cases are met with in girls. The rest of the body is mostly developed quite normally. Of co-existent deformities, there are most often mentioned numerical defects of fingers and toes ; then pes valgus and varus, and various visceral anomalies. A study of the anatomical changes leads the author to the conclusion that cyclopia is the result of a pathological process affecting synchronously all the anatomical parts of the anterior end of the fœtal head; while other authors attribute the deformity under consideration to morbid alterations of some one organ, —of the encephalon alone, or of the eye, etc. The author shows that cyclopic changes probably develop under the influence (1) of pressure produced on the frontal part of the primordial skull, and the anterior brain-bladder, by the narrowed amniotic 'skull-cap', and (2) of an inflammatory process affecting the meninges, cranial and facial bones, etc. All those changes which transform a normal human embryo into a cyclopic one, take place gradually during the second and third weeks of fœtal life.

V. IDELSON, M.D.

6. *Regne on the Hæmatic Crises in Acute Diseases, with Sudden Defervescence.*—In this thesis (Paris 1881) M. Regne has done for the pathological physiology of the blood the same as M. Cadet has effected for the normal physiology of that fluid. M. Regne has, in the first instance, discovered that inanition in a fasting dog increases the number of red corpuscles in the cubic millimètre of blood; this simply signifies that the spoliation of the water and of the serum of the blood is the cause of the blood-corpuscles being found in larger proportion. The hæmatoblasts, on the contrary, have decreased by more than one half at the end of sixteen days. The richness of the blood in hæmoglobine does not vary at all at first in inanition, but diminishes rapidly at the latter period. In the human subject in the normal condition there is one hæmatoblast to twenty red corpuscles. In acute diseases, with sudden defervescence, the relation changes at the approach of the crisis, and undergoes remarkable oscillations. If the curve of these diurnal variations be traced in the course of a fever, it will be seen that, towards the termination of the febrile period, there is a minimum of red corpuscles, but that at this time the number of hæmatoblasts increases greatly, and with extreme rapidity, so as frequently to triplicate the normal quality in a few days. In pneumonia and erysipelas of the face, especially, there is one hæmatoblast to eight, seven, or six red corpuscles ; the latter number is almost constant in pneumonia. This rapid increase of the hæmatoblasts is followed by a prompt diminution, and thus constitutes a true 'hæmatic crisis'. In proportion to the diminution of the hæmatoblasts, the red corpuscles, which are probably produced by them, increase rapidly, and that according to the rapidity with which the process of repair takes place. In fact, these phenomena of the repair of the blood follow the same course as the thermic crisis, and, in proportion as the temperature returns to the normal condition, the number of the red corpuscles continues to increase. It is to this repair, consecutive on hæmorrhage, much more than to inanition, that the hæmatic crisis of febrile diseases must be compared. After hæmorrhage, in fact, there is a very rapid growth of hæmatoblasts, and, after this crop, their number diminishes quickly, and, at the same time, the number of red corpuscles regains the normal standard. It must then be admitted that, in febrile diseases, there is destruction of the figurate elements of the blood, and repair by means of hæmatoblasts, which, after having multiplied themselves, are soon transformed into red corpuscles.

7. *Déjérine on Gangrene of Nervous Origin.*—M. Déjérine (*Le Prog. Méd.*, 1882, No. 6) has studied the changes in the nerves in sloughs depending on changes in the central nervous system. He has examined, one hour after death, portions of skin affected with gangrene from a case of cerebral hæmorrhage, and from one of sclerosis in patches. He found parenchymatous neuritis affecting all the nerve tubes, both near the slough, and as far up as 7 or 8 centimètres from it.

8. *Roth on Malformations in the Region of the Ductus Omphalo-Mesentericus.* — Roth (Virchow's *Archiv*, Band lxxxvi) divides congenital intestinal cysts into two classes : 1. such as have occurred by the sealing-up of the originally normally-placed gut in several places, and which, because of the complete obstruction, always have a fatal issue; 2, such as are the result of abnormal development in early stages of fœtal life. These last he subdivides into : *a*, those in which the cystic parts originated in a rudimentary twin ; *b*, those in which they appear as a regular hypertrophy of organic parts in combination with other processes of like nature ; *c*, those which develop as simple entero-cystomata from abnormal lateral appendages, most frequently from the diverticulum of Meckel. The author then relates two

cases of cystic diverticula ilei, and one of so-called 'patent diverticulum'. The first case was that of a male child, aged 1 year and 4 months, in which gangrene and peritonitis had followed torsion of the pedicle. A narrow opening was found to lead from the cyst into the ileum, the former being about the size of an apple, and showing intestinal structure on its wall. In Case 2, that of a boy who died after birth, cysts were found in the mesentery and in the posterior mediastinum, all showing intestinal structure. Case 3, observed six months during life, was that of a boy; *post mortem* examination revealed a patent prolapsed Meckel's diverticulum.

F. WILLIAM ELSNER.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1. POLK.—Landmarks in the Operation of Laparo-Elytrotomy. (*New York Med. Jour. and Obstet. Rev.*, May.)

2. ENGELMANN.—Diagnostic and Operative Difficulties in Ovariotomy. (*Amer. Jour. of Med. Sciences*, April.)

3. SOLOVIOFF, A.N.—On Extirpation of the Cancerous Uterus. (*Mediz. Obozr.*, Jan. 1882, pp. 109-116.)

4. HUZARSKI, S.—On Iodoform in Gynæcological Practice. (*Gaz. Lekarska*, 1882, No. 2.)

5. KRASINA, T. M.—Absolute Obstruction to Labour, caused by Fœtal Ascites. (*Vratch*, 1882, No. 6, pp. 92-93.)

1. *Polk on Landmarks in the Operation of Laparo-Elytrotomy.*—Dr. William M. Polk, Professor of Obstetrics in the University Medical College, New York, recently demonstrated certain anatomical points bearing upon the operation of laparo-elytrotomy, before the New York Obstetrical Society (*New York Med. Jour. and Obstet. Rev.*, May). The specimen shown, taken from the body of a woman who had been murdered in the seventh month of pregnancy, was a dissection showing the relations of the pelvic contents during the latter part of gestation, and especially the course of the ureter. Practising the operation upon this and other bodies, the author has found that the ureters do not follow the pelvic wall to a point near the ischial spine, as in the non-pregnant condition, but that, crossing the pelvic brim at the common iliac bifurcation, the left just behind, the right just in front of that point, they descend into the canal to the brim of the bony pelvis, the point being about the synchondrosis. In this course they accompany the internal iliac artery, the right in front of the vessel, the left crossing it obliquely. Reaching the bony brim (the ilio-pectineal line), they leave the pelvic wall, emerging from beneath the base of the broad ligaments (in pregnancy about on a level with the pelvic brim, and carried back on a line with the synchondrosis), and take a course downward, forward, and somewhat inward, passing about midway between the pelvic wall and the cervico-vaginal junction, but approaching very closely the antero-lateral wall of the vagina, as they turn more decidedly inward, on a lower plane, to strike the base of the bladder three-quarters of an inch below the cervix, terminating in the bladder at a point (the subject being on the back) just two inches below the spine of the pubes. A line drawn from the bifurcation of the common iliac to the spine of the pubic bone corresponds in the main to the line of the ureters. Along this line they have the following relations to the pelvic brim (in the recent state). At the bifurcation, half an inch below, at the extremities of the transverse diameter of the pelvis, about an inch; and at the spine of the pubic bone, two inches below. As a whole, the tubes in the pelvis are situated upon a higher plane than in the non-pregnant condition, having been carried slightly upward while being separated from their close relations with the pelvic wall by the ascending uterus. How far they may be elevated in a case of extreme pelvic deformity with a pendulous abdomen, and the uterus correspondingly displaced, the author is unable to say; but he thinks it probable that, the bladder being empty and not dragged upward, thus preserving the normal position of the vesical end of the tubes, the displacement would not be such as to bring any part of them much above the points indicated. Dr. Polk has also investigated the ground of the objection to operating upon the left side. In view of the strong probability that the operation can be done on the same side but once, this, he remarks, is a very important question. He did the operation upon the left side, the vessels being injected with plaster and the rectum distended. He found that the rectum offered no such obstacle as is commonly supposed, and that the operation was as feasible upon one side as upon the other. After the operation the organ was carefully examined, and found in no way disturbed. In looking at its position, this was readily accounted for; it lies behind the broad ligament. In entering and leaving the pelvic canal, the brim between the base of the broad ligament and the posterior surface of the bladder is crossed. This latter is about on a line with the ilio-pectineal eminence, while the former is as far back as the synchondrosis; here is ample space for manipulation and extraction. The important structures that Dr. Polk regards as most likely to suffer are the vessels going to the uterus through the broad ligaments. These, by being stretched and dragged upon in extraction, might be torn if the sides of the incision were not carefully supported in cases requiring powerful traction.

2. *Engelmann on Diagnostic and Operative Difficulties in Ovariotomy.*—Professor Engelmann of St. Louis contributes an able paper with the above title to the April number of the *American Jour. of the Med. Sciences*, with the account of two cases. He emphasises the following points as of practical importance in securing successful results. 1. Enter the peritoneum at the upper angle of the abdominal incision, mindful of the safety of an enlarged bladder. 2. Endeavour to secure deep and firm union of the abdominal incision by carefully and closely placed sutures during the operation, and proper support for months after. 3. Tie all bleeding points, use the finest braided silk, cut short, and drop at once. 4. Avoid routine Listerism, and especially the carbolic acid spray over the hands of the operator and into the abdominal cavity. Cleanliness, not carbolic acid, is necessary. Keep the sponges clean and warm, but not carbolised; avoid carbolic acid about the peritoneum and open surfaces. Ligatures, sutures, and instruments should be clean, but not carbolised. 5. Late operations are the scourge of surgeon and patient. If an operation be indicated, operate early, as the patient's chances decrease with the growth of the tumour and the failing of health.

3. *Solovioff on Extirpation of the Cancerous Uterus.*—Dr. A. N. Solovioff of Moscow records

(*Mediz. Obozr.*, Jan. 1882) his third case of extirpation of the uterus for carcinoma of the cervix, in a patient aged 53. The operation was performed through the vagina. The uterus having been brought down by means of Museux's forceps, the cervix was separated from the surrounding parts, and then Douglas's pouch was laid open. The anterior peritoneal *cul-de-sac* was not opened; the operator cut off, by means of scissors, the whole of the mucous membrane and the greater part of the muscular wall, leaving a thin stratum of the latter, with the serous covering *in situ*. The broad ligaments were then divided, some vessels were tied, and a drainage-apparatus (four Nélaton's flexible catheters sewed together) was introduced into the opening in Douglas's pouch. On the seventh day afte the operation, the drainage-tube was removed. On he fifteenth day, the patient was up. Her recovery was rather slow. This is the second time the author has operated through the vagina, which method he prefers to the high (or laparotomic) operation, finding the low extirpation technically easier and less liable to such complications as shock, or accidental wounding of the bladder or ureters. The high operation he regards as indicated only when the uterus is too large to be removed through the posterior or anterior peritoneal *cul-de-sac*, or when there exist adhesions of the womb and degeneration of lymphatic glands (*Mediz. Obozr.*, Oct. 1881, p. 516). The author gives the reasons which led him to perform total extirpation of the womb, though the cervix alone was affected. The researches of Drs. Ruge and Veit have shown that in cases of cervical cancer the epithelium of the body of the uterus also degenerates very early. Microscopic examination of the mucous membrane of the body of the organ in the author's case fully confirmed the statement of Ruge and Veit. Dr. Solovioff belongs to the most ardent advocates of Freund's operation, and even holds that total extirpation of the uterus is the only rational procedure in the treatment of uterine cancer. [This is the sixth case of Freund's operation performed in Russia. Dr. Levenstein of Moscow operated twice, with two deaths (LONDON MEDICAL RECORD, Dec. 1880, p. 496); Dr. Solovioff three times, with one death; and Dr. N. J. Bogoluboff of Kazan once; the patient recovered (*Vratch*, 1881, Nos. 48 and 49). Probably the brilliant results lately published by Dr. Bardenhever of Stuttgart (*Die Drainirung der Peritoneal Höhle*, Stuttgart, 1881), who operated twelve times, with eleven recoveries, will encourage Russian surgeons to perform Freund's operation more often than they have hitherto done.—*Rep.*]

4. *Huzarski on Iodoform in Gynæcological Practice.*—Dr. S. Huzarski (*Gaz. Lekars.*, 1882, No. 2) successfully treated pelvic cellulitis, parametritis, and perimetritis, by introducing into the vagina iodoform suppositories (5 grains to half a drachm of cacao-butter). A suppository was left for twelve hours, being kept *in situ* by means of a small cotton-wool tampon; then a disinfecting vaginal douche was administered, and a new suppository introduced. Iodoform invariably diminished pain, and favoured absorption of the inflammatory deposits. The author never saw any untoward general symptoms, even after one to three months' use of the remedy. [Dr. Kisch thinks similarly of iodoform treatment in such cases. See LONDON MEDICAL RECORD, March 1880, p. 111.—*Rep.*]

5. *Krasina on Fœtal Ascites as a Cause of Insurmountable Obstruction in a Case of Labour.*—Mrs. T. M. Krasina of Orel (*Vratch*, 1882, No. 6) details the case of a pluripara, in which the enormous enlargement of the fœtal abdomen proved to be an insurmountable obstruction to labour. When called to the patient, she learnt that the head and upper extremities had been expelled some hours before, after which the delivery stopped. The uterus was tetanically contracted; the child dead. Access to the child's abdomen being extremely difficult, the author removed the head (already almost torn away by a midwife's energetic attempts at extraction), and both arms, and then introduced the trocar behind the symphysis. After puncture, the labour was easily accomplished, having lasted nineteen hours. The profuse hæmorrhage which followed the extraction of the child immediately stopped after manual removal of the very large placenta. The abdominal cavity of the fœtus contained at least six pints of fluid. Dr. Krasina points out the exceeding rarity of such enormous ascitic accumulations in the fœtus, requiring operative interference. She quotes Dr. Muratoff's statistics, who (*Moscow Inaugural Dissertation*, 1879) collected 41,000 cases of labour admitted into the Moscow Lying-In Hospitals, and did not find a single similar instance.

V. IDELSON, M.D.

DISEASES OF CHILDREN.

RECENT PAPERS.

1. PARROT.—Dislocation of the Cranial Bones in the Meningitis of Children. (*Rev. de Méd.*, Feb. 1882.)
2. UNRUH.—The Pathology of Diphtheria. (*Jahrb. für Kinderheilk.*, vol. xvii, Parts 3 and 4.)
3. POTT.—Experiments on Vaccination with Aseptic Vaccine Lymph. (*Ibid.*)
4. BOKAI.—Record of Cases of Retropharyngeal Abscess. (*Ibid.*)
5. LINDNER.—The Treatment of Recent Empyema in Children. (*Ibid.*)
6. WINCKEL.—On the Use of Prolonged Baths for the New-Born. (*Centralbl. für Gynäkol.*, 1882.)
7. CARMICHAEL.—Some of the Sequelæ of Acute Infectious Diseases in Children. (*Edinburgh Med. Jour.*, Jan. 1882.)
8. DAY.—Headaches in Children. (A paper read before the Harveian Society, Feb. 2, 1882.)
9. SMITH, EUSTACE.—On Renal Calculus in Children. (*Lancet*, Feb. 18.)
10. TROITZKY.—Calculus of the Bladder in an Infant. (*Vratch*, No. 37, 1881; *Centralbl. für Chir.*, No. 47, 1881.)
11. LESENEVICH, B.—On a Case of Chorea et Vermibus. (*Vracheb. Vedom.*, No. 4, 1882, p. 2951.)
12. CAMPA.—Entero-Colitis Consecutive on Scarlatina. (*Revista de Cieneias Med.*, No. 3, 1882.)
13. DURAND.—Treatment of Infantile Purulent Pleurisy.
14. MARTIN.—Vaccina Transmitted from Mother to Infant.
15. ELLIOTT.—The Feeding of Infants. (*Practitioner*, June 1881.)
16. GREULT.—Hot-Water in the Asphyxia of New-Born Infants. (*Jour. de Méd. de Paris*, 1882, No. 11.)
17. LAWRENCE, H. C.—Narcotism in Infancy. (*Practitioner*, May 1882.)

CLINICAL RECORDS OF CHILDREN'S DISEASES.

Case of Paralysis of Left Fifth and Seventh Nerves in a Child aged 3 years, with Atrophy of Left Eye: exhibited at Cambridge Medical Society: symptoms commenced at age of 7 months: no history of syphilis: cornea opaque and insensible to touch: anæsthesia of left side of face,

nose, supra-orbital region, and inside of mouth: teeth on left side absent or decayed: paralysis of left orbicularis palpebrarum and facial muscles: discharge from left ear: disease supposed to be located in course of fifth nerve, anterior to Gasserian ganglion, and adjacent part of temporal bone, involving seventh nerve. Mr. Wherry. (*Brit. Med. Jour.*, Jan. 7, 1882.)

Round-Celled Sarcoma of Right Kidney: girl, aged 2½ years: forming a tumour of about the dimensions of a fœtal head. Dr. Donkin, East London Hospital for Children. (*Ibid.*, Feb. 4.)

Spina Bifida: spontaneous cure: at birth, three inches in diameter: at 3 months old, five inches in diameter and flat, projecting only one inch and a half from the surface, and very tense: at 6 months, began spontaneously to diminish in size, and at 10 months had entirely disappeared: at 16 months, only an indurated cicatrix to be seen, the bones having completely ossified. Dr. Lithgow. (*Ibid.*, Feb. 11.)

An Anomalous Case of Infantile Paralysis. Dr. Haddon. (*Ibid.*, Feb. 18.)

Hysterical Paraplegia in a Boy aged 12 years: previously suffered from incontinence of urine: sudden onset of paraplegia: no pain nor convulsion: complete anæsthesia from level of patella to roots of toes, with sharply defined limits: plantar, patellar, tendon, and cremasteric reflexes normal: no ankle-clonus: complete loss of voluntary power: no nocturnal incontinence after onset of paraplegia: recovery of sensation in two days, and of power of movement in a fortnight. Dr. C. Allbutt. (*Ibid.*, Feb. 25.)

Hæmaturia and Subsequent Passage of Urea and Calculi of size of pin's head: boy aged 6. Dr. E. Smith, East London Hospital for Children. (*Med. Press and Circ.*, Jan. 25.)

Cerebral Abscess in Girl aged 12 years: symptoms dated from injury to head, and were only headache and vomiting: pulse, respiration, temperature, pupils normal: six weeks after injury drowsiness set in, passing into coma, with twitchings of extremities: two ounces of pus removed by trephining: subsequent death: *post mortem*, the abscess was seen to be of size of small orange, occupying the right anterior cerebral lobe, reaching backwards nearly to lateral ventricle and basal ganglion, which was not involved: bounded by a tough impervious capsule, perforated by the cannula after trephining: grey matter of convulutions not destroyed, but at places separated from the abscess wall by a very thin layer of white matter. Mr. G. Lawson, Middlesex Hospital. (*Ibid.*, March 8.)

Case of Early Menstruation, commencing at age of 5 years and 9 months, recurring at intervals of three to six weeks: mammæ and genitals well developed. Mr. Berry. (*Ibid.*)

Cases Illustrating the Use of the Internal Administration of Sulphide of Calcium in doses of 1-10th gr. to 1-4th gr. in Strumous Ophthalmia. Mr. S. Snell. (*Practitioner*, Jan. 1882.)

Series of Cases Illustrating Defective Developmental Conditions in Children. Dr. F. Warner, East London Hospital for Children. (*Med. Times and Gaz.*, Jan. 21, 28, Feb. 11.)

A Halfpenny Swallowed by a Boy aged 5 years, and Vomited Five Weeks after: epigastric pain, vomiting, and loss of flesh in the interval: subsequent recovery. Mr. Jenkins, Oxford. (*Ibid.*, Feb. 11.)

Case of Congenital Umbilical Tumour in an Infant 6 weeks old: consisting of a hernia-like protrusion of skin, three-quarters of an inch in length, surmounted by a red fleshy outgrowth through a hole in which urine flowed, indicating a patent urachus: tumour transfixed and strangulated with ligatures: complete recovery. Dr. French. (*Lancet*, Jan. 14.)

Disease of the Knee in a Girl aged 2¼ Years, with Necrosis of nearly Entire Shaft of Femur: excision of joint, with removal of sequestrum: complete recovery. Mr. Bryant, Guy's Hospital. (*Ibid*, Jan. 28.)

Hydrocele of Right Side of Neck: commencing in a girl at age of 5 months, attaining a large size: evacuated successfully. Dr. Whitson. (*Ibid.*, Feb. 18.)

1. *Parrot on Dislocation of the Cranial Bones in the Meningitis of Children.*—Professor Parrot, in a communication to the February number of the *Revue de Médecine*, draws attention to a cranial lesion of which he has not hitherto seen mention, although he does not consider it to be of rare occurrence. After the removal of the scalp, the cranial bones may be seen separated by a sanguineous fluid between their margins. The disunion attains its greatest size at the summit of the coronal and sagittal sutures, where it may amount to 3 or 4 millimètres. This condition is, doubtless, due to a sudden increase in volume of the cranial contents, resulting from inflammatory or serous exudation, producing œdema of the brain, or hydrocephalus. Another indispensable condition of the separation is the rapid development of cerebro-meningeal lesions. The cases in which this condition has been observed have reached an age when the different bones of the cranial vault are no longer separated by membrane, but where the sutures have not acquired the compactness they afterwards attain. In this intermediate condition, between the absolute resistance of the adult skull, and the elasticity of the membranous sutures of the newly born, a sudden and powerful distension from within ruptures the fibro-vascular cords which bind the bones together. This cranial dislocation does not appear to give rise to any trouble during life.

2. *Unruh on the Pathology of Diphtheria.*—From an experience of seventy-five cases of diphtheria, the majority of which occurred in children between two and nine years, Dr. Unruh comes to the conclusion that diphtheria is a contagious infectious disease, which, in a number of cases, runs its course as a local affection, and, in a number of cases, from the local lesion passes into a general infection. Although the author regards this statement to be tolerably certain, he nevertheless admits that it has yet been of but slight practical value, owing to the want of a positive indication when the local affection ceases to be simply local, and when it becomes a general disease. Excluding the severest cases, which are struck down at once, the majority give no absolute indication where the local affection ends, and the infection begins. Yet definite information on this point is of the greatest importance, for a better knowledge of the disease, as well as for the prognosis and treatment of individual cases. It is impossible to judge from the extent and character of the fever whether we have to deal with a purely local or with a general condition; for cases of simple anginous catarrh, wholly local in nature, are of frequent occurrence where the fever is intense, showing that we must not assume, from the existence of a high temperature, the presence of a general infectious disease; and, on the other hand, a true infection is not contra-indicated in the absence of a high temperature. In addition, the course of the temperature in diphtheria is so variable that it is of doubtful value in determining this question. Nor can the coincident affection of the lymphatic glands, which invariably occurs in diphtheria, be taken as conclusive on this point, since identical glandular lesions occur in typically local affections. Recognising the uncertainty of these signs, in determining the real nature of diphtheria, the author is inclined to put more value on the occurrence of albuminuria, which he considers to be the first and only absolutely sure sign of the existence of the general infection, and that it is wanting in no cases where, on other grounds, we are able to recognise the existence of the general infection, which

condition may be excluded when albuminuria is not present. Hence, Dr. Unruh advises a daily examination of the urine from the very first; and he is of opinion that the great discrepancy among authors, as to the frequency of albuminuria in diphtheria (these differences varying from 10 to 66 per cent.), is due to the want of this precaution; since often no analysis is made unless there be anasarca, and many cases with albuminuria are known to run their course without any œdema. Out of fifty-three cases, carefully observed by the writer, 16 or 30 per cent. manifested albuminuria; but, without placing too much importance on these figures, they suffice to show the frequent occurrence of the complication. In attempting to determine the more important question, when the albuminuria begins, how long can the local affection last before the albuminuria sets in, and how far the duration of the local lesion affects the existence of the albuminuria, too much stress has been laid upon the intensity of the throat-condition, rather than on the periodic relationship of these two factors of the disease.

3. *Pott on Vaccination with Aseptic Lymph.*—The conclusions arrived at by Dr. Richard Pott, confirm the results previously obtained in respect to the protective power of aseptic lymph being in no wise diminished. Köhler and Kobert, in 1878, recommended thymolised lymph, in the proportion of two or three parts of a 1 per cent. aqueous solution of thymol, to one part of lymph. Dr. Pott's experiments were made with watery solutions of salicylic, boracic, and carbolic acids; the last in varying strengths, from 1 to 4 per cent., and always without diminishing the protective power of the lymph. Mixed with a 5 per cent. solution of carbolic acid, however, the lymph appeared to be quite inoperative, no vaccination-pustules following its introduction. He further suggests that the aseptic material may destroy any erysipelatous poison the lymph might contain, as well as producing a lymph that may be kept good for years.

5. *Lindner on Recent Empyema in Children.*—Dr. Lindner is a warm supporter of the plan of treatment of recent empyema in children by free incision rather than by aspiration. In setting forth the relative merits of these two methods, he admits that there may not be a sufficient number of cases to form a perfectly conclusive opinion, this state of things being very much due to the suppression of unfavourable cases by the supporters of each view. The points for comparison between the two plans are the severity and complexity of the operations, and mortality, as well as the duration of the subsequent period of recovery; and the author is distinctly of opinion that the radical operation of incision is not so unfavourable on these heads as has been affirmed. So far as recorded cases go, recovery in those treated by aspiration has been as long delayed as where free openings have been made. The frequent necessity for repetition of paracentesis, and the daily need for examination of the chest, to ascertain how far the pus may have accumulated, render this operation, on the whole, quite as tedious as the other, whilst decomposition of the contents of an empyema, which may follow aspiration, imperatively demands free incision, that the pleura may be washed out. Elevation of temperature, and the febrile state, rarely follows incision, as it frequently does aspiration, necessitating its repetition. The writer does not attribute much force to the objection urged against incision, that it substitutes a positive, and therefore harmful pressure of a pneumo-thorax on the lung for the negative, and consequently advantageous, pressure of aspiration. The larger opening also permits the complete evacuation of the coagulated lymph, which, if retained, is liable to become cheesy, and a source of mischief. The operation itself must be performed with strictly antiseptic precautions. The pus should be allowed to escape slowly. There is no specially favourable site for the incision, and the author does not favour resection of a portion of the rib. Chloroform may be given to older children for dividing the integuments; but is otherwise unnecessary, and a counter-opening is requisite when decomposition has necessitated the washing out of the chest. In those cases where the empyema has communicated with the lung, the operation should be delayed, since recovery frequently occurs without it.

7. *Carmichael on Some of the Sequelæ of Acute Infectious Diseases in Children.*—Dr. Carmichael, in a paper read at the Medico-Chirurgical Society of Edinburgh, reminds us how frequently the chronic ill-health of children is to be attributed to a previous acute infectious disease, especially measles, whooping-cough, or scarlatina. It is especially the organs concerned in the nutrition of the growing child that suffer, with the result of producing a general debility frequently associated with a hyperplasia of the lymphatic glands, bronchial, or mesenteric. Among the other sequelæ are nasal catarrh, certain gastro-intestinal affections, and cutaneous eruptions, chiefly of a chronic pustular character. In the absence of special constitutional taint, these affections usually yield to tonics, good feeding, and proper hygienic conditions.

9. *Smith on Renal Calculus in Children.*—The occurrence of renal calculus in children, Dr. Eustace Smith thinks to be more frequent than is usually supposed. Uric acid is the commonest constituent of the concretion. This proteid derivative is often excreted in excessive quantity; an apparent increase in the amount being due to a diminished secretion of water, or an increased acidity of the urine, whilst a real excess frequently results from large quantities of food or increased tissue-metabolism. This tendency to lithic acid formation may be hereditary, as in the gouty diathesis, and all conditions that interfere with the assimilative processes tend to a precipitation of uric acid in some part of the urinary apparatus, either as infarctions in the tubules of the pyramids, or in the pelvis of the kidney. Besides uric acid, oxalate of lime concretions are not uncommon in children; and sometimes small calculi of urate of ammonia or soda, occasionally a nucleus of uric acid, may be encrusted with urates or phosphates, the latter indicating the existence of vesical irritation. Urine that may be thick from lithates is passed without any distress to the child; but excess of uric acid determines frequency of micturition, signs of pain in the urethra, and very often nocturnal incontinence, whilst the passage of the sharp crystals along the renal tubules is a frequent cause of hæmaturia. Indeed, this latter symptom in children is usually to be attributed to the cause under consideration. Examination of the urine in these cases often gives a negative result. Calculus may exist in the kidney without giving rise to symptoms of any kind. Between the attacks of hæmaturia, the urine may contain neither blood nor albumen, and, unless uric acid be actually passing, it may redden litmus paper but faintly. Sometimes the irritation produced by the presence of the calculus in the pelvis of the kidney may set up pyelitis, the stone then usually becoming enlarged

by deposition of phosphates upon its surface. The passage of the concretion along the ureter seems to be attended with less pain than in the adult, though serious consequences will follow its impaction, such as contraction of the passage, and even hydronephrosis. Whilst it is far from uncommon for children to pass quantities of uric acid sand, a coincident hæmaturia is by no means so frequent; and this seems due to the fact that the acid is commonly deposited from the urine in the bladder itself, and not at a higher point in the urinary tract. In the case of children, it may be laid down as a rule, that renal hæmorrhage, occurring in a child otherwise healthy, and accompanied by no symptoms or by hæmorrhage from other parts of the body, is in the majority of cases to be attributed to the irritation of crystalline masses in the tubules, calyces, or pelvis of the kidney. Where there is evident disposition to excessive formation of uric acid, the diet should be light and plain, and the meat and farinaceous constituents carefully proportioned to the digestive powers; alkalis should be given, and, if there be hæmorrhage, perfect rest in bed enjoined. Styptics are rarely required.

W. H. ALLCHIN, M.B.

10. *Troitzky on a Calculus of the Bladder in an Infant.*—Dr. J. W. Troitzky relates, in *Vratsch.*, No. 37, 1881 (*Centralbl. für Chir.*, No. 47, 1881), the case of a child one month old, which was brought to him with the following history. In other respects perfectly healthy, it cried loudly, about twice a week, on attempting to pass urine. The mother accidentally discovered that the flow of urine became free, and the child was relieved, when she held its pelvis and feet higher than the head. It first cried during micturition when it was eight days old. Twenty-four hours before Dr. Troitzky saw the child, the difficulty had returned, and could not be removed by the usual manœuvre; the flow of urine was quite arrested. The bladder was distended with urine, and a calculus was detected in the urethra, about the middle of the penis. All attempts to remove it were fruitless. Dr. Troitzky then injected a few drops of almond-oil into the urethra, and easily pressed the stone towards the orifice; after the dilatation of which, the calculus was removed. It weighed a quarter of a gramme (nearly four grains), was eight millimètres long and four wide, and consisted of urates arranged in layers. The urine contained an abundance of crystals of uric acid and urates. The formation of the calculus must have commenced during intra-uterine life. The child's parents were healthy; the grandfather on the father's side had suffered from calculus.

A. HENRY, M.D.

11. *Lesenevich on a Case of Chorea due to Ascarides.*—Dr. Lesenevich (*Vracheb. Vedom.*, 1882, No. 4) records an interesting case of so-called sympathetic chorea (*chorea e vermibus*), in a weak, delicate boy, aged 11, with feebly developed muscles and pale integuments, who, a month ago, began to complain against abdominal pains and occasional startings in the hands and feet. Later, there were gradually developed true choreic movements, which came in paroxysms of two or three minutes' duration about sixty times during the day. At night, the boy was quite quiet. Each paroxysm was ushered by slight giddiness and was followed by a deep sigh and feeling of fatigue. The administration of two full doses of santonine, having expelled twelve round ascarides (*ascaris lumbricoides*), at once stopped all choreic symptoms. [Another interesting instance of 'worm' neurosis—Dr. Reckett's case of torticollis due to *oxyuris vermicularis*, is to be found in the LONDON MEDICAL RECORD, June 1880, p. 233.—*Rep.*] V. IDELSON, M.D.

12. *Campa on Entero-Colitis consecutive on Scarlatina.*—Dr. Campa of Valencia observed an epidemic of scarlatina in April and May last (*Rivista de Ciencias Medicas*, No. 3, 1882), in the course of which he noticed frequent complications. At the commencement of his paper, he remarks that intestinal inflammation during scarlatina is rare in children a year old. However, in the cases of scarlatina which he observed at the latter period of the epidemic, intestinal complications were frequent, very serious, and fatal in children of four, five, and even six years of age. The symptoms took the following course. There was diarrhœa during the course of the scarlatina; then, after the disappearance of traces of the infectious disease, there were pains in the bowels; the tongue was dry and burning, red at the edges, and white at the middle line; the patients had nausea and tendency to vomiting, slight meteorism, pain on pressure of the abdomen, frequent evacuations; the stools being, as a rule, alternately mucous and containing ill-digested substances, and sanguinolent. The pulse averaged about 110. This sort of entero-colitis generally assumed a chronic form. Some of the symptoms disappeared, and the fever decreased; but the meteorism and diarrhœa continued, and soon brought on emaciation. The patients lost their colour, and assumed a cachectic aspect. The illness generally terminated in death, notwithstanding all treatment, and even change of air, which was recommended for some of the cases. The writer attributes these intestinal symptoms to the kind of feeding to which the little children had been subjected, principally to feeding by farinaceous food. He says that he never observed entero-colitis in children suffering from scarlatina who had been nourished by meat, broth, and nitrogenised food before the commencement of the attack.

13. *Durand on the Treatment of Infantile Purulent Pleurisy.*—Dr. Martial Durand has communicated a very complete study on this subject to the Society of Medicine and of Surgery of Bordeaux, which terminates in the following conclusions. 1. Aspiratory puncture, either simple or followed by injections, is a bad method of treatment, of which the duration is frequently much prolonged, and which scarcely ever dispenses with the necessity of having recourse to other means. 2. The method of treatment by drainage-tubes, and especially by Potain's siphon, has almost all the inconvenience of pleurotomy, since it does not thoroughly preserve from the entrance of air, without having its advantages, since it does not allow the exit of the intra-pleural detritus. 3. M. Durand believes that the objections to the entrance of air into the pleura have been much exaggerated. It does not seem to him that this is dangerous if the pus flow continuously, and if the air be not imprisoned. 4. The operation for empyema seems to him to be the best of methods when the diagnosis is very clear. With this proceeding, the disease is, perhaps, less prolonged, but it is desirable that this operation should be made use of before the patient has fallen into a state of cachexia. The operation gives good results, and would give better if the general condition were good, and with the use of antiseptic methods.

14. *Martin on Vaccinia Transmitted from Mother to Infant.*—Dr. Henry A. Martin of Boston records a case of generalised vaccinal eruption occurring in

a nursing infant aged seven months, who had not been vaccinated, and was suffering from eczema capitis, but whose mother was undergoing revaccination with bovine vaccine virus. He has seen two other cases of general vaccinia, and these also were children suffering from eczema.

15. *Elliott on the Feeding of Infants.*—Dr. Elliott (*Practitioner*, June 1881) recommends Cadbury's cocoa essence, or Fry's cocoa powder, or cocoa nibs, for infants. Of either of the first two, he recommends a teaspoonful to be dissolved in half a pint of boiling milk and water (equal parts). Of the nibs, take one ounce, and boil it in a pint and a half of water for five hours, strain, and add new milk and sugar. Cocoa makes an excellent food for thin and wasted infants, who take it greedily and soon improve in health.

16. *Greult on Hot Water in the Asphyxia of Newborn Infants.*—M. Greult (*Jour. de Méd. de Paris*, 1882, No. 11) reports the case of a primipara, in which he delivered by forceps, and after a tedious labour, an infant which was breathless, cold, with scarcely any movement of the heart, and very feeble pulsation in the cord. Knowing the researches of Dr. Lebon on the action of hot water in the asphyxia of young animals, he obtained a vessel of water as hot as the hand could bear, which is about 45 deg. Cent. (113 deg. Fahr.), plunged the child in this, and commenced artificial respiration by alternately raising the arms and compressing the chest. At the end of a minute or more, the skin reddened, and a slight movement of the chest indicated commencing respiration; at the end of two minutes the child began to cry, to breathe, and move. He thinks the hand enables one, in the absence of a thermometer, to estimate with sufficient precision the temperature of the water for this purpose, as at 50 deg. Cent. (122 deg. Fahr.) it seems burning hot.

17. *Lawrence on Narcotism in Infancy.*—Mr. H. Cripps Lawrence draws attention to this important subject (*Practitioner*, May 1882), and traces the results of the administration of a narcotic given in small but repeated doses to a healthy child. 1. A modified degree of excitement supervenes, followed by sleep; and this condition may recur for a period varying from a few days to a week or two. If the repetition of the narcotic be at all frequent, or if it be given in any but very small amount, this period of favourable narcosis will be proportionately diminished, and the chances of its lethal effect increased. 2. In some infants, the effect will be to speedily constipate, and digestion will be arrested. Other infants, the subjects of imperfect digestion associated with colic, will be for a time benefited by a moderate amount of narcotic. The sedative acts by checking peristalsis, and so enables the food to remain a longer time in contact with the digestive juices, and thus to become more perfectly digested. A more frequent sign of the administration of a narcotic is the occurrence, or concurrence, of vomiting and diarrhœa, and then a longer time will elapse before narcosis ensues. 3. Diaphoresis and diuresis, one or both, may occur. The predominance of either will be dependent upon the amount of fluid injected, the character of these fluids, and the atmospheric temperature. 4. The fæces soon become paler and more solid, more and more deficient in bile, and the evacuations become less frequent. They become verdant green, with or without mucus, and may be blood-streaked from constipation and tenesmus. 5. Later, the marked depression of the vital powers gives rise to sinking of the anterior fontanelle, feeble pulse, an earthy complexion, wasting and loss of weight, and pinched features. The infant alternates between peevish whimpering and imperfect somnolency. The pupils, at first contracted, may now contract or dilate, or be unequal. When this stage is reached, any further dose of the narcotic may prove lethal; and it is now that the cumulative effect of the narcotic becomes dangerous. Either clonic convulsions may set in, or, more frequently, profound and, perhaps, fatal coma. Four special sources of danger during the course of the narcotism are pointed out, viz., irregularity in the administration of food; food given at an excessive temperature, whereby vomiting is increased; disregard of the hygiene of the nursery, and indulgence of the nurse in the same narcotic as is being administered to the infant.

T. STEVENSON, M.D.

OTOLOGY.

RECENT PAPERS.

1. OUSPENSKY, M.—Hysterical Deafness. (*Annal. des Mal. de l'Oreille, du Larynx, etc.*, Dec. 1881.)

2. LADREIT DE LACHARRIÈRE. — On Tinnitus. (*Ibid.*)

3. BABER, CRESSWELL.—Chronic Non-Purulent Disease of the Middle Ear: Great Benefit from the Audiphone. (*Specialist*, Dec. 1881.)

4. BONNAFONT.—On the Possibility of Certain Nervous Phenomena, such as Vertigo, etc., generally attributed to the Semicircular Canals, being produced by Simple Pressure on the Membrana Tympani, and Fenestra Ovalis. (*Ibid.*)

5. HABERMANN, J.—On the Employment of Anterior Rhinoscopy by Zaufal's Method, for the Examination of the Naso-Pharyngeal Cavity. (*Ibid.*, and *Wiener Med. Presse*, 1881.)

6. THEOBALD, SAM. — Suggestions regarding the Treatment of Suppurative Otitis. (*Trans. of the Amer. Otolog. Soc.*, 1881.)

7. ROOSA, D. B. ST. JOHN.—On the Value of Operations in which the Tympanic Membrane is Incised. (*Ibid.*)

8. ROOSA, D. B. ST. JOHN.—On the Tuning-Fork in Diagnosis. (*Ibid.*)

9. GREEN, J. ORNE.—Removal of Foreign Bodies by Displacement Forward of the Auricle and Cartilaginous Meatus. (*Ibid.*)

10. BURNETT, C. H.—Malignant Growth in the Naso-Pharynx, with Early Aural Symptoms. (*Ibid.*)

11. KIPP, C. J.—A Case of Epithelioma of the Middle Ear. (*Ibid.*)

12. BUCK, A. H. — Sudden and Complete Loss of Hearing in one Ear during an Attack of Mumps. (*Ibid.*)

13. BUCK, A. H.—Vascular Tumours of the Membrana Tympani. (*Ibid.*)

14. STEINBRÜGGE, H. — On the Topography of the Human Vestibule. (*Archives of Otology*, vol. x, No. 4.)

15. RUSHMORE, J. D.—History of a Case of Hæmorrhage from the Ear. (*Ibid.*)

16. BURNETT, SWAN M. — Otomyces Purpureus (Wreden) in the Human Ear. (*Ibid.*)

17. AYRES, C. S—Exostoses of the External Auditory Canal. (*Ibid.*)

18. AGNEW, C. R., and WEBSTER, D.—Clinical Contributions to Otology. (*Ibid.*)

19. POLLAK, S.—Necrosis and Elimination of almost the whole Bony Apparatus of Hearing: Recovery. (*Ibid.*)

20. KNAPP, H.—Trephining of Mastoid in a Case of Otitis Catarrhalis Chronica, with an Intact Membrana Tympani; Opening of the Lateral Sinus: Recovery by First Intention. (*Ibid.*)

21. RECLUS, PAUL.—On the Use of the Naso-Pharyn-

geal Douche in the Treatment of Certain Affections of the Nasal Cavities. (*Annal. des Mal. de l'Oreille, du Larynx, etc.*, March 1882.)

1. *Ouspensky on Hysterical Deafness.*—Dr. M. Ouspensky of Moscow (*Annales des Maladies de l'Oreille, du Larynx, etc.*, Dec. 1881) relates two interesting cases of the above. Case 1. E. M. V., female, married, aged 19, anæmic and nervous, was first seen May 17, suffering from complete deafness on both sides, the result of an otitis from scarlatina, complicated with diphtheritic sore-throat, in the previous February. The tuning-fork on the head was only faintly perceived in the right ear. Examination showed that the right membrana tympani was almost entirely destroyed; on the left side, the posterior segment, which appeared atrophied, alone remained. There were continual tinnitus, like rushing of wind in the left ear, and loss of taste and smell, with profuse nasal catarrh. During the diphtheritic scarlatina, there had been unconsciousness for some time; and with the onset of deafness the voice became hoarse and nasal, and fluid nourishment escaped through the nostrils. The left facial nerve was also paralysed. At the age of 18 years she suffered from an uterine disorder. Previous treatment had stopped the otitis, but the deafness remained complete. Being sent into the country by the author on account of her great weakness, the patient began to hear her own voice on June 20th, and about July 1st she could hear words spoken close to her, with the right ear in a low tone, and with the left in a loud voice. Further amendment ensued, till July 19th, when she suddenly became completely deaf without any cause. In two days the hearing returned, but was lost again each week. The onset of deafness was always preceded by a modification of the voice, which became hoarse and hollow, but again resumed its clear character when the deafness disappeared. When seen on August 23rd, the patient could understand ordinary conversation at a short distance from the ear, and could hear high, but not low, tones. Taste begun to return, but the sense of smell was still lost. Further examination showed that there was also anæsthesia of the left side of the head, the concha and the nose. Galvanisation of the cervical sympathetic (4 to 6 elements of Brenner's apparatus) for five minutes caused the deafness to disappear instantaneously, and under six applications the attacks became less frequent and shorter. At the end of October the report was, that the attacks of complete deafness no longer occurred, and that only the habitual deafness, which had become less, remained. The otitis and paralysis of the different nerves as indicated by the above-mentioned symptoms, the result of the diphtheria, were, the author considers, in this case complicated with hysteria. Case II. S. P. V., widow, aged 43, consulted the author for deafness of five years' duration, of the right ear only, accompanied by a blowing noise. The tuning-fork on the vertex resounded in the right (affected) ear. The watch and loud voice were not heard with the right ear. The right auricle and meatus were anæsthetic; the tympanic membrane was normal. Examination of the Eustachian tube and auscultation showed nothing particular. At 16 she was married, and three years afterwards suffered from an uterine complaint, the result of a miscarriage. Five years ago, suddenly, after a fit of sneezing, she experienced a blowing noise in the right ear, and lost the hearing. Under treatment by specialists (including Politzerising) she began to hear the watch, but only for a time. The author then tried galvanisation of the cervical sympathetic, beginning with four elements, but it was only when the current was gradually increased to twelve elements that the patient experienced vertigo, and felt the passage of the current. The hearing returned at the same moment, and with it the sensibility of the auricle and meatus. The noise was slightly diminished, but did not cease. The hearing remained satisfactory for a month, the patient hearing conversation in a low voice at a distance of 70 centimètres, and a whisper at 27 centimètres. The author, in conclusion, suggests that in every case of deafness without pathological changes in the meatus or middle ear, the degree of sensibility of the auricle should be examined.

3. *Baber on the Use of the Audiphone.*—Mr. Cresswell Baber (*The Specialist*, Dec. 1881) records a case of chronic non-purulent disease of the middle ear, in which the audiphone was of great benefit. An ordinary voice, which was heard only at about one foot in front of the patient's face, was audible with the instrument at a distance of 6 or 7 feet. The patient (a woman, aged 26) heard decidedly better with the audiphone than with a conical metallic hearing trumpet. A loud whisper was heard when repeated close to the audiphone, but not without that instrument. For hearing sounds at a distance, and for bass voices, the patient found it necessary to curve the instrument more than usual. The author considers that the case encourages to a further trial of the principle of the audiphone, if only with a view of discovering exceptional cases, such as the one under consideration. He is of opinion that a simple piece of cardboard or a Japanese fan is sufficient to indicate the presence of such cases.

5. *Habermann on the Use of Anterior Rhinoscopy, by Zaufal's Method, for the Examination of the Naso-Pharyngeal Cavity.*—Dr. J. Habermann (*Wiener Med. Presse*, 1881, and *Annal. des Mal. de l'Oreille, du Larynx, etc.*, March 1882) considers that Zaufal's specula are of use, not only in exceptional, but in ordinary cases. Nos. 3 and 4 (the smallest sizes) he finds suffice to give a clear and distinct view of the naso-pharynx.

5. *Theobald and others on the Treatment of Suppurative Otitis.*—Dr. Theobald (*Trans. of the American Otolog. Society*, 1881) has employed, with very gratifying results in suppurative otitis (including under this term otitis externa diffusa, as well as otitis media suppurativa acuta and chronica), insufflation of a powder consisting of equal parts of boracic acid and oxide of zinc. Occasionally, when this fails to do good, he employs a mixture of boracic acid and alum, or oxide of zinc alone. The author describes numerous cases, in which he has used the mixture of oxide of zinc and boracic acid. Dr. H. D. Noyes has found a mixture of equal parts of tannin and boracic acid very satisfactory. Dr. Sexton has employed a combination of boracic acid and calendula (25 to 30 per cent. of the latter). Drs. Burnett and J. Orne Green spoke in favour of pure boracic acid.

7. *Roosa and others on Operations on the Membrana Tympani.*—Dr. St. John Roosa, in opening a discussion on this subject (*Ibid.*, pp. 448 *et seq.*), declared himself in favour of what he terms the gentle method, his principles being (1) to use a small needle for paracentesis, and (2) to make the incision just large enough to give exit to the pus, blood, or mucus. He rejects as useless, according to his experience, all operations in chronic non-suppurative cases where there is no suspicion of retained mucus

in the tympanic cavity. Even in acute and subacute cases, when the presence of accumulations of mucus or pus can be plainly made out, he regards paracentesis as an operation not to be lightly undertaken, and as one which may sometimes be avoided by other suitable treatment, such as Politzerising or leeching. The general opinion of the meeting was in accord with the conclusions advanced by Dr. Roosa, as opposed to the operations formerly recommended in chronic non-purulent disease of the middle ear without secretion, and in favour of operations where there are collections in the tympanic cavity. Several members, however (*e.g.*, Drs. Noyes, C. H. Burnett, and Prout), advocated earlier incision in cases of acute suppuration. Hinton's method of washing out the drum-cavity in chronic cases was spoken of as having 'fallen into disuse,' and there was no evidence given in favour of tenotomy of the tensor tympani.

8. *Roosa on the Tuning-fork in the Diagnosis of Diseases of the Ear.*—Dr. St. John Roosa (*Ibid.*) formulates his conclusions in regard to the tuning-fork as follows. 1. If one ear be normal as to the hearing power, and the other abnormal, and a vibrating tuning-fork (C) be placed upon the vertex or teeth, if its sound be intensified in the ear whose hearing power is diminished, there is disease of the external or middle ear, but no lesion of the labyrinth or nerve. 2. If, under the same conditions of a sound ear on one side, while the hearing power of the other is impaired, the tuning-fork be not heard better in the worse ear, even if the meatus be stopped by the finger or the like, there is disease of the labyrinth, the acoustic nerve, or brain. 3. If the vibrating tuning-fork be heard better on the mastoid bone than when placed in front of the meatus, there is disease predominantly of the middle ear. 4. If the tuning-fork be heard better through the air than through the bones, there being impairment of hearing, the disease which gives rise to this symptom is situated in the brain, nerve, or labyrinth.

9. *Green on the Removal of Foreign Bodies by Displacement forward of the Auricle and Cartilaginous Meatus.*—Dr. Orne Green (*Ibid.*) relates a case in which he removed portions of two bullets (weighing altogether 48¼ grains) by the method described by Von Trœltsch, *i.e.*, by displacement forward of the auricle and cartilaginous meatus after a semicircular incision had been made above and behind the auricle through the periosteum, and after division of the meatus in the upper and posterior part at the junction of the cartilaginous and osscous portions

12. *Buck on Loss of Hearing from Mumps.*—Dr. A. H. Buck (*Ibid.*, p. 488) relates two cases of sudden and complete loss of hearing in one ear during an attack of mumps. In these cases (which occurred in patients aged 16 and 41 years respectively), there was sudden and complete deafness in one ear on the third or fourth day of the disease; in the first with decided pain, in the second without any pain whatever; but in both with distressing subjective noises. In Case I, both parotid regions were apparently equally affected by the mumps, but only the right ear became deaf. In Case II, on the other hand, the left parotid region was more severely affected, and it was on that side that the loss of hearing occurred. In this case, about fifteen days after the primary attack, a second one, attended by nausea and dizziness, and considerable difficulty in maintaining equilibrium, occurred. The author assumes that in the first attack the cochlea alone was involved, whilst in the second an escape of blood or plastic exudation took place in the vestibule or in the ampullæ of the semicircular canals. In Case I, there was no nausea nor dizziness. The author, therefore, considers that in this case the cochlea alone was affected. In Case I, it was also noticed that, four days after the sudden attack of pain and deafness, the middle ear of the affected side presented absolutely no signs of inflammation, and that the patient heard the ticking of the watch in the left ear, when it was pressed firmly against the right or affected ear. In both cases the deafness proved perfectly irremediable, but the symptoms in Case II, which were apparently due to the semicircular canals, were greatly diminished by leeching. Various opinions regarding the mode in which the ears become affected in these cases were expressed by members in discussion; and the author points out that, if Vogel's view be correct, according to which the channel by which the inflammation is conveyed is the facial nerve, it is easy to understand why the middle ear should escape, and why only the cochlear portion of the labyrinth should be seriously affected. The very close proximity of the facial nerve to the first cochlear whorl, where the author imagines the thin bony lamina may sometimes be absent, renders it probable that this is the spot at which the disease passes from the facial canal to the cochlea.

13. *Buck on Vascular Tumours of the Membrana Tympani.*—Dr. Buck (*Ibid.*) describes a case in which there was a small vascular mole in the central portion of the posterior superior quadrant of each tympanic membrane.

15. *Rushmore on a Case of Hæmorrhage from the Ear, probably due to a Fracture of the Skull.*—Dr. Rushmore (*Archives of Otology*, Dec. 1881) relates a case in which about sixteen ounces of venous blood escaped from the left auditory canal. The author subsequently found a rupture of the membrana tympani. He judges that in all probability there had been a bone lesion downwards and forwards. Recovery ensued.

16. *Burnett on Otomyces Purpureus in the Human Ear.*—Dr. Swan Burnett (*Ibid.*) describes a case in which he removed from the meatus, a dark red mass resembling at a superficial glance a clot of dried blood. On microscopic examination, it proved to consist of a fungus similar to that described under the above name by Wreden, of St. Petersburg. The author's opinion is that the otomyces purpureus is not in any way connected with either aspergillus niger or flavus. It appears to him to assume the asceous form from the outset.

17. *Ayres on Exostosis of the External Auditory Canal.*—Dr. S. C. Ayres (*Ibid.*) relates the case of a man, aged 28, both of whose meatuses were occluded by a bony septum about half an inch from the posterior border (*sic*) of the cartilaginous canal. The external surface of both of the septa was concave, and covered with epidermis. The central portion appeared whiter than the periphery. The growth in the deafer ear (hearing distance = ½-60″) was operated on with the dentist's drill, but for various reasons only a small perforation was made through it. The hearing, however, reached that of the better ear (*i.e.* 1½-60″). During childhood, the patient had suffered from chronic purulent inflammation of the middle ear.

18. *Agnew and Webster on some Otological Cases.*—The authors relate (*Ibid.*) four cases. The first is one of binaural deafness, probably due to simultaneous exudation into both labyrinths; the only known cause, except a fall on the head a year previously,

being the prolonged occupation of a damp room. The patient was totally deaf to conversation, but could hear the watch readily at a distance of several inches. The second case is one of wound of the membrana tympani by an oak stub. The third is of some interest, being one of double rupture of the membrana tympani from the blow of an open hand on the left ear. Four days after the injury, the two ruptures were distinctly visible, one being in front of the handle of the malleus, nearly parallel with that structure, and extending about two-thirds of its length, the other extending from the end of the handle horizontally backward to nearly the periphery of the membrane. The warm aural douche was applied on one or two occasions; nevertheless (*Rep.*) the ruptures healed in a short time. In Case II. syringing was also employed to remove some pieces of bark and dirt from the ear; but the perforation healed with little or no impairment of healing. Case IV is one of supposed foreign body in the tympanum, in which attempts at removal before the case was seen by the authors had much damaged the ear.

19. *Pollak on Necrosis of the Bony Apparatus of Hearing.*—In this case (*Ibid.*) the author removed with forceps under ether (1) a part of the mastoid process and cells; (2) the whole of the petrous portion of the temporal bone; and (3) the osseous portion of the meatus. They were all removed at one sitting. The patient, aged 5 years, recovered with facial paralysis; but there was no loss of power of the orbicularis palpebrarum on the affected side.

20. *Knapp on Trephining of the Mastoid Bone in Chronic Tympanic Catarrh.*—Dr. Knapp (*Ibid.*) trephined for persistent pain in the mastoid process in a case of chronic non-suppurative inflammation of the middle ear. The patient, who was 16 years of age, had suffered from the pain for three months. The author opened the mastoid bone by means of a chisel, and in doing so copious venous hæmorrhage occurred, the author thinks from an injury to the lateral sinus. He wiped out the wound carefully, and closed it with silk sutures passed through the skin and periosteum, a thin silver tube being inserted at the lower angle of the wound. The wound healed readily, and the tympanic membrane and meatus showed no signs of inflammation. Thirty-nine days afterwards, the pain had not reappeared, and the hearing was improved. The author regards the case as one of chronic mastoiditis interna leading to sclerosis. In the treatment, he lays stress on the hermetic closure of the wound without the use of antiseptics.

21. *Reclus on the Use of the Naso-Pharyngeal Douche in the treatment of certain Affections of the Nasal Cavities.*—Dr. Paul Reclus (*Annal. des Mal. de l'Oreille, du Larynx*, etc., March 1882), recommends the use of milk in large quantities as a nasal douche, and cites three cases in which recovery ensued with this treatment alone; the first two being cases of chronic nasal catarrh in young girls, the third a case of ulceration (larger than a franc in size; and two or three millimètres deep), of uncertain origin, occurring on the septum, in a man aged 56. The author allows an enormous quantity of milk to traverse the nares, sometimes as much as 85 to 40 pints *per diem*, the milk as it flows out being of course used again. E. CRESSWELL BABER, M.B.

NEUROLOGY.

RECENT PAPERS.

1. GIBNEY.—Intermittent Spinal Paralysis of Malarial Origin. (*Amer. Jour. of Neurol. and Psychiatry*, No. 1, 1882.)

2. TERRIER and SUE.—Symptoms attending Fractures in Epileptic Subjects. (*Revue de Chir.*, Feb. 1882.)

3. LORING.—On Intracranial Disease and Choked Disc. (*New York Med. Jour. and Obstet. Rev.*, June.)

4. HAMILTON.—Sensory Epilepsy. (*New York Med. Jour. and Obstet. Rev.*, June.)

5. MILLS.—Hystero-Epilepsy. (*Amer. Jour. of Med. Sciences*, Oct. 1881.)

6. CHARCOT.—Galvanism of the Cranium in Hypnotism. (*Le Prog. Méd.*, 1882, No. 4.)

7. FÉRÉ.—On Hystero-Epilepsy. (*Arch. de Neurol.*, No. 8.)

8. BOURNEVILLE and BONNAIRE.—On Lesion of the Island of Reil. (*Arch. de Neurol.*, No. 8.)

1. *Gibney on Intermittent Spinal Paralysis of Malarial Origin.*—Dr. Gibney (*Amer. Jour. of Neurol. and Psychiatry*, vol. i, No. 1, 1882) has described three cases of this somewhat rare affection. The first was that of a boy aged 7, who lived in a damp house, in the immediate neighbourhood of which malarial fevers prevailed. He was suddenly seized with feverish symptoms, and next morning had paralysis of the legs, which, the day after, was followed by paralysis of the arms. He took quinine, and appeared better in a week, but fell ill again three days afterwards with a similar attack, which left complete paralysis of the four extremities. At the end of three months he was much better, was removed from the malarious locality, and, four months later, appeared to be quite well. He then returned to a damp place, and had a relapse of paralysis five weeks after, but recovered completely in three weeks under quinine and with removal. A fourth attack took place four and a half months after return home. He was again in the hospital, and, at the end of six months, recovery was not complete. The fifth attack occurred six months after discharge, and, at the end of two months, recovery was nearly complete. There was loss of tendon reflexes, and diminished or absent electric contractility of the muscles, so that the case looked, at first sight, like one of anterior poliomyelitis. This intermittent form of spinal paralysis forms a very striking contrast to the ordinary form of spinal paralysis, which is very constant in its appearance. Cases of this kind have been recorded by Macario, Romberg, and Hartwig, but are, on the whole, exceedingly rare, although other neuroses, more especially neuralgia, are common after malarial infection; and Trousseau even maintained that intermittent fevers, under whatever form they might present themselves, ought to be classed with the neuroses. Dr. Gibney argues that the pathology of these cases must be essentially different from that of ordinary spinal paralysis of infancy, in which latter disease there is rarely, if ever, complete recovery. Hartwig believes the changes which take place to be transitory hyperæmia and serous transudation into the substance of the cord; but Erb has objected to this view that the disturbance is always confined to the motor portions of the cord, leaving the sensory portions entirely unaffected. In Gibney's cases, however, there were violent pains in the affected muscles, and general hyperæsthesia, which shows that the sensory portions do sometimes suffer. He thinks

that the disease consists of an active hyperæmia of the cord, more especially in the region of the anterior cornua, followed by passive hyperæmia and œdema. In hysterical paralysis, the electrical tests of the paralysed muscles remain generally normal, even where the affection has lasted for years; nor could one assume lead-palsy, which has quite different clinical features. Dr. Gibney says that masked intermittent fevers prevail about New York, that they have very irregular types, and are, above all others, neurotic in their phenomena; and that it is necessary to differentiate between the curable and incurable paralyses of children.

JULIUS ALTHAUS, M.D.

2. *Terrier and Luc on the Symptoms attending Fractures in Epileptic Subjects.*—These writers report (*Revue de Chir.*, Feb. 1882) two cases, one of fracture of the clavicle in a hystero-epileptic woman, and one of fracture of the leg in an epileptic patient, also a female. In both cases, consolidation of the fracture was effected at the proper time, without presenting anything characteristic in its progress. The phenomena observed were rather accessory symptoms, depending on the nervous condition of the patients. The first patient, who was very excitable, greatly exaggerating her sensations, and excessively impressionable, manifested, immediately after the fracture of the left clavicle, an acute hyperæsthesia on the same side of the body, with very painful contraction of all the muscles of the arm and shoulder. These symptoms improved after the application of continuous currents and magnets, but returned more violently after each attack, and that for more than six months after the fracture. The second patient, who was apathetic aud indifferent, almost insensible to external influences, fractured both bones of the leg without showing the least pain after the accident, and continued, during eleven days, to use her leg as before. It was very difficult to make her wear the necessary apparatus, of which she said she had no need. Thus, write the authors, in two different cerebro-spinal systems, one very excitable and one not excitable, there were corresponding sensory and motor disturbances of absolutely opposite nature—anæsthesia in one patient, hyperæsthesia and contraction in the other.

3. *Loring on Intracranial Disease and Choked Disc.*—Dr. Edward G. Loring contributes to the June number of the *New York Med. Jour. and Obstet. Review* an article on the nervous connection between intracranial disease and choked disc, the conclusions of which are these. 1. The vaso-motor theory, as advanced by Benedikt, is not sufficient to explain either the mode of transmission of the morbid irritation within the head, or the resulting neuritis optica. 2. The irritation is conveyed, not by the isolated fibres of the sympathetic system, as stated by Benedikt, but through the agency of the trigeminus. 3. Choked disc or papillitis, in connection with brain-disease, is the expression of an irritation or compression of certain intracranial fibres of the fifth pair which preside over the blood-supply of the disc and neighbouring parts, and also maintain the healthy processes of waste and repair of the tissues themselves. This being so, he adds, the same analogies and distinctions between 'irritation' and 'inflammation' can be made here as with sympathetic ophthalmia; so that here, as well as there, the irritation may exist as such for an indefinite time, or may so reduce the vitality and resisting power of the tissue of the disc and surrounding parts, as to develope gradually, or explode suddenly, into an actual inflammation—that is, into a neuritis. The immediate and exciting cause of this neuritis may then be either an external one, such as exposure to cold or heat, over-exertion, either mental or physical, or, indeed, too much exposure to light, the effects of which, under the weakened condition of the organ, may be looked upon as a 'traumatism'; or the exciting cause may be an internal one, such as some irritation from the condition of the blood and circulating fluids, either chemical or mechanical, either local or general, which, insufficient in itself to produce any bad effect upon a normal disc, may yet be just sufficient to produce a condition of inflammation in a part that is weakened and irritable.

4. *Hamilton on Sensory Epilepsy.*—In the *New York Med. Jour. and Obstet. Review*, for June 1882, Dr. Allan McLane Hamilton presents a paper on cortical sensory discharging lesions (sensory epilepsy), or that form of epilepsy in which the sensory element preponderates, whether as an aura preceding a motor discharge, or occurring as a part of a paroxysm in which there is little or no succeeding motorial disturbance, but simply a discharge consisting of a preliminary alteration of special sensibility, and an immediate subsequent stage of unconsciousness. In the majority of these cases there is, he remarks, the simplest form of subjective consciousness of sensory impressions, most of the attacks consisting of the primary stages suggested by Hughlings Jackson, such as a sudden stench in the nostrils, or coloured vision; but in two or three instances there has been much more than this, and the phenomena have been quite remarkable. In some cases, the occurrence of a transient contraction of the fingers of one hand lent additional interest to the history, especially in regard to localisation. In one case, the patient's sensory condition was not the dreamy state referred to by Jackson, but there was always an hallucination of taste, the patient declaring that he tasted copper or some other nauseous substance; and, in other cases, there were equally striking proofs of the primary involvement of the cortical centres. The occasional occurrence of hallucinations as a part of the epileptic attack has been mentioned by various authors. Brierre de Boismont, Esquirol, Delasiauve, Maisonneuve, Billod, Sommers, Bergmann, Guislain, and Tigges, as well as many other writers, have furnished cases which began with sensory auræ or hallucinations; but none of them, says Dr. Hamilton, have made a distinct classification of sensory and motorial epilepsy, and but little mention is made of the disease where the paroxysms consist solely of sensory phenomena, the disturbance of motility being absent. He has not, so far, met with cases in which the individual was influenced by his hallucinations to express them by special motor acts before the attack, except in an unimportant way. On two occasions, he has been present at the beginning of a sensory attack. In one instance, the patient complained afterwards that he smelt a horrible stench. Immediately before losing consciousness, he carried his hand up to his nose, and immediately afterwards became oblivious to everything about him. A similar action was performed by a patient who forcibly placed both hands over his eyes, as it afterwards transpired, to keep out a bright light that blinded him. In the light of all that has been done in the localisation of cerebral disease, Dr. Hamilton thinks that we should discover, if possible, the part played by the cortical sensory centres in the genesis of such epilepsies. So far, little has been brought forward to connect lesions of the sensory centres with special symptoms.

In our pathological discussion of sensory epilepsy, the distinction should be made between lesions of the thalamus opticus and those of the cortical sensory zones; for in the one instance the sensory disturbance may be called the essential, while in the other there may be said to be an affection of special subjective consciousness. If an impression upon the organ of sense be sufficiently intense to impress the infracortical central sensory apparatus (thalamus opticus) centripetally, it does not follow that there need be any implicated alteration of function in the cortical sensory regions. A lesion of the posterior part of the thalamus opticus, for example, may result in blindness—a mechanical blindness, if such an expression can be used, though there are exceptional cases reported by Brown-Séquard where even this is not the case—but it will not produce word-blindness, a purely psychical defect. There must be some altered cortical function to account for the unmistakable operations which permit the individual to recognise the altered sense-states, and enter into the involuntary formulation of hallucinations which are afterwards remembered. The author, therefore, does not believe that the disease of the thalamus opticus alone plays any part in the origination of hallucinations. He thinks we may recognise a form of epilepsy of sensorial character, the motorial features being either absent or insignificant; that such sensory manifestations arise from an unstable condition of the sensory cortical centres; that a slight grade of sensory disturbance may indicate simply a suspension of inhibition through an exhausted state of the perception centres which are infracortical, or a suspension of the influence of the superior cortical centres, in which case the process is more complex, and the result may be the formation of hallucinations.

5. *Mills on Hystero-Epilepsy.*—In an elaborate paper in the October-number of the *Amer. Jour. of the Med. Sciences*, Dr. Chas. K. Mills, lecturer on mental diseases and electro-therapeutics in the University of Pennsylvania, reports a number of interesting and important observations upon two original cases of hystero-epilepsy, or hysteria major, of Charcot. Following these cases, the author considers at some length the phenomena of the attack, and compares the description given by the French writers, with the clinical histories of his original cases, showing a remarkable correspondence between the phenomena presented. The attack of hystero-epilepsy is always preceded, sometimes for several days, by prodromata, which are often numerous and varied, embracing trouble of all parts of the economy. Dr. Mills, following Richet, studies them mainly under four heads, namely: 1. Psychical manifestations, hallucinations; 2. Affections of the organic functions; 3. Affections of motility; 4. Affections of sensibility. The analysis of these systems is very interesting, especially since they include the discussion of the 'epileptogenic zones' of Brown-Séquard, something analogous to which appears in hystero-epilepsy, and which, in the paper, are shown by diagrams. The stage of invasion being over, the attack itself has likewise been divided into four distinct periods: 1. Epileptoid; 2. Great contortions; 3. Emotional attitudes; 4. Delirium. Some of these, according to Richet, admit of subdivisions into phases; modifications also may occur. Besides these great attacks and their numerous varieties, grave hysteria counts among its manifestations phenomena which merit the name of permanent symptoms. The most striking of these are the troubles of sensibility, such as anæsthesia, hyperæsthesia, etc., the affections of motility, such as paralysis, contracture, common chorea, and rhythmical chorea. They also include disorders of secretion, such as anuria, vomiting, and hæmatidrosis; troubles of nutrition, such as result from prolonged abstinence; and disturbances of circulation, such as flushing, urticaria, stigmata, or ecchymoses, etc. As regards the intellectual faculties, it is observed that they are not materially affected even after years; the prognosis, therefore, is far less grave in this respect than in epilepsy proper. In the treatment, which is carefully studied by Dr. Mills, galvanism occupies a prominent place, both in the attack and in the interval. In France, the hydrotherapeutic method of treatment has been found of the greatest service. Ovarian compression, inhalation of chloroform or ether, or hypodermic injections of morphia, and electricity, are employed during the attack. Subsequently, metallo-therapy externally and internally, applications of magnets, static electricity, or weak galvanic currents, and other remedies, have been used with varying results; but the author properly adds that 'good hygienic influences, moral, mental, and physical, are of the utmost importance'. The article is very freely illustrated by striking original designs and diagrams.

6. *Charcot on Galvanism of the Cranium in Hypnotism.*—Charcot (*Le Prog. Méd.*, 1882, No. 4), referring to his previous communications on this subject, said he had proved, by direct experiment on the cadaver, that electrical currents could be transmitted through the integument and cranial bones to the surface of the brain. He had found that all the cases did not conform to his previous description—that they must be divided into three groups. In the first, as already described, there was movement of the opposite side of the body, generally at the closure of the current. In the second group, the movements predominated markedly on the same side of the body. It was noteworthy that three of the four cases forming this group showed when awakened similar contractions under the influence of cephalic galvanism as those seen when in a state of lethargy. In the third group, no effect was produced by cephalic galvanism. M. Charcot does not think the movements depend on the excitation of the cortical motor centres. There is much that requires further investigation. Perhaps, founding one's self on the experiments of Marshall Hall, Bochefontaine, Brown-Séquard, Duret, and others, one might bespeak the intervention of the excitation of sensory regions of the dura mater.

7. *Féré on Hystero-Epilepsy.*—Charcot's classical description of the ordinary phases of hystero-epilepsy is now well known, but M. Féré points out that there are exceptions to this type (*Archives de Neurol.*, No. 8). He gives a case in which the movements, instead of being, as usual, in the longitudinal axis of the body, take place around its transverse axis. It is interesting to note that the patient was subject to true epileptic attacks, which were hereditary, from the age of nine to thirteen years. When the catamenia appeared, the disease became transformed into hystero-epilepsy. The influence of puberty over these neuroses is thus strikingly illustrated. It must be added, that the patient was also affected with hemianæsthesia of somewhat irregular distribution. This same patient was attacked with herpes zoster in the path of the nerves arising on a level with the dorso-lumbar hysterogenic zone. Whilst the eruption was in course of development, the convulsive attacks entirely ceased.

8. *Bourneville and Bonnaire on Lesion of the Island of Reil.*—An interesting case is given by the above-named observers, in which a man aged 34 was suddenly seized with left hemiplegia (*Archives de Neurol.*, No. 8). The attack took place twenty years before his admission into Bicêtre. Six years after the paralytic seizure, the patient became subject to epileptic attacks. When the man came under observation, he was found to be suffering from left hemiplegia, with contracture; the arm and leg were a good deal wasted, and there was a perforating ulcer on the sole of the left foot. The tendon-reflexes on the paralysed side were much exaggerated, and there was spinal trepidation. There was no disorder of sensibility, but the intellect was much impaired. The necropsy showed, on the right side, atrophy of the posterior part of the third frontal convolution, of the two ascending convolutions of the globule of the gyrus angularis, and of the entire island of Reil. The first and posterior parts of the second temporo-sphenoidal convolution were also involved. The island of Reil was replaced by a kind of gelatinous membrane of reddish colour. The parts above-named were simply atrophied, and presented no change of colour. The right corpus striatum and optic thalamus were considerably reduced in volume. Secondary descending degeneration was visible to the naked eye in the various regions through which the pyramidal tract passed.

W. B. HADDEN, M.D.

REVIEWS.

THE OPIUM QUESTION.

Medical Testimonies as to the Effects of Opium-Smoking. By Medical Men who have resided in China. With a Preface by Sir JAMES RISDON BENNETT, M.D., LL.D., F.R.S. London: Dyer Brothers. 1882.

The Opium Trade. By Sir RUTHERFORD ALCOCK, K.C.B. *Journal of the Society of Arts*, No. 1,522. London: Bell and Sons. 1882.

The Truth about Opium. By WILLIAM H. BRERETON, late of Hong Kong. London: W. H. Allen and Co. 1882.

The Opium Habit, its Successful Treatment by the Avena Sativa. By E. H. M. SELL, M.D. A paper read before the New York State Medical Society. Reprinted from the *New York Med. Gaz.*, April 22, 1812.

THE first work on our list is published under the auspices of the Society for the Suppression of the Opium Trade, of which Sir James Risdon Bennett is one of the vice-presidents. It purports to be 'an impartial collection of medical evidence'; and 'the Committee', we are told, has not thought it right to withhold some opinions from which it dissents.

Sir Rutherford Alcock, who lived for nearly twenty years in China, apparently holds no high opinion of the Society in question, for he says: 'I wish to speak with all respect of the high dignitaries, civil and clerical, who have given their names in aid of this movement. They are great authorities in their own spheres, and, as no one doubts their good faith or good intentions, there is a natural reluctance to question the wisdom of their acts. Nevertheless, in such a discussion as they have actively promoted concerning the opium trade, its history, conditions, and influences, it is scarcely a disparagement to say that they cannot be supposed to have any great knowledge of the subject. It is one that cannot be mastered in a few hours' study; and when they give circulation in their speeches to exaggerations of the most mischievous and misleading character, it must be assumed that they speak from the briefs furnished them by others. But they cannot on that account be entirely acquitted of responsibility for the truth of the statements to which they lend their names.'

Mr. Brereton, who lived for nearly fifteen years in Hong Kong, expresses very similar sentiments, for he speaks of the Society as being supported 'by some of the most influential people in England, noblemen, archbishops, and other dignitaries of the Church, clergymen of all denominations, people justly and deservedly commanding the respect of the entire community, but who, on this opium question, know little or nothing, who implicitly believe all that is told them by the agents of the Society, but otherwise have no knowledge of the facts.' Mr. Brereton, speaking from personal observation, is confident that most of the statements made respecting the frightful effects of opium-smoking are grossly exaggerated. He says: 'For myself, I may say that I have taken a very great interest in the subject, particularly during the last five or six years. I have tried, and tried in vain, to find out those pitiable victims of opium-smoking who have been so much spoken of in books, in newspapers, and on public platforms. I have gone through the most populous parts of Hong Kong—which is a large city, having about 150,000 Chinese inhabitants—in both the wealthiest and poorest quarters. I have had in my office day after day Chinese of all classes, seeing them, speaking to them, and I have never found amongst them any of these miserable victims to opium-smoking.' He adds: 'Many people in this country, I dare say, think, if they went to Hong Kong, they would see swarms of wretched creatures, wan and wasted, leaning on crutches, the victims of opium-smoking. If they went to the colony, they would then be greatly disappointed, for no such people are to be met with. On the contrary, all the Chinese they would meet are strong, healthy, intelligent-looking people, and, mark my word, well able to take care of themselves.' Mr. Brereton's work is furnished with a collection of interesting appendices relating to the opium question.

The remedy to which Dr. Sell ascribes such remarkable properties (*New York Med. Gaz.*, April 22) is a tincture of common oats. He begins by telling us that it is a very important grain, and then gives us a long history of its cultivation and uses from the time of Pliny to the present day. He discourses, too, at some length on the value of water-gruel and oatmeal-tea. He next tells us that in 1874 Dr. Keith 'had a concentrated tincture of the avena prepared for paralysis, from the effects of which he himself suffered for three years and a half, and in three weeks, having taken the avena in fifteen-drop doses three or four times a day, he was not only free from paralysis, but relieved from many serious symptoms, both mental and physical'.(!) The author commenced his own observations with the concentrated tincture before hearing of Dr. Keith's case. He is convinced that it is 'a most useful and reliable remedy'. He finds that it is 'diuretic, slightly laxative, tonic, stimulant, but especially nerve-stimulant.' It is said to 'exert a most powerful influence upon and through the nervous system'. It is 'a valuable

adjuvant to other medicines', is unsurpassed in 'female diseases', is 'an excellent substitute for intoxicating drinks', will cure inebriety', is 'an antidote to opium-poisoning'.(!) It gives relief in insomnia, and is curative in nervous headache and prostration due to mental strain and worry, and also in neuralgia and hemiplegia. 'Epilepsy has been brought under subjection by it more effectively than by other remedies', and it is unequalled in the treatment of 'hysteria, melancholia, neurasthenia, and all forms of nervous prostration, whether caused by inebriety, the abuse of tobacco, opium, or morphine, by sexual excesses, masturbation, or mental strain'. But this is not all, for the author has made what he describes as 'a no small discovery in therapeutics'. He finds that this remedy is an absolute cure for the opium or morphia habit. He gives details of three cases of morphia-taking, all of which were promptly cured by his remedy. The first patient, a German, of middle age, usually took hypodermically in the twenty-four hours from 12 to 48 or 50 grains of morphia, which had no other effect than to produce fifteen minutes' sleep with the eyes wide open. The next patient, a middle-aged lady, had been a slave of the morphia habit for seven years, and usually took 12 grains a day. In the third case, morphia had been taken to excess for twenty years, the average being an ounce in fifteen days, or 32 grains a day. The avena in all cases works wonders. The patients are not only able to relinquish the habit, but improve in weight, strength, spirits, and mental capacity. One lady not only gained twenty-five pounds in weight in an incredibly short time, but said she felt twenty years younger. It is stated in the most positive terms that the preparation is nothing but a tincture of common oats. The dose is to be increased till it produces 'the desired effect', and it is to be given in hot water, 'with the same frequency that the patient was accustomed to take his opium or morphia'. The author displays great originality, and his powers of imagination are remarkable.

WILLIAM MURRELL, M.D.

Medical and Surgical Aspects of In-Knee (Genu Valgum); its Relation to Rickets, its Prevention, and its Treatment with and without Surgical Operation. By W. J. LITTLE, M.D., F.R.C.P., assisted by E. MUIRHEAD LITTLE, M.R.C.S. London: Longmans, Green and Co. 1882.

IN these days of brilliant operations, when osteotomy seems to be considered by many surgeons as the most desirable, or even the only efficient treatment for genu valgum, it is interesting to read the records of the experience of such a veteran of orthopædic surgery as Dr. Little. The opinions of the man who, by his pluck and perseverance, obtained relief from his own distressing deformity, in opposition to the advice of the leading surgeons of the day, and to whose exertions we owe the establishment, upon a scientific basis, of the treatment of deformities in this country, are, at least, worthy of consideration. Ever since the establishment of the Royal Orthopædic Hospital in 1838, Dr. Little has been actively engaged in treating orthopædic cases; and genu valgum has received, from him, considerable attention. We may, therefore, accept with confidence his assertion that, although during the last few years many hundreds of cases of in-knee have been considered by surgeons to require for their cure violent methods of treatment or serious operations, yet, with all his experience, he has 'never met with a case that did not recover by the help of instrumental means alone'.

It is especially gratifying to the writer of this review to find that Dr. Little's matured experience confirms the views upon the treatment of genu valgum, which have been lately published by him.

Dr. Little deprecates 'the practice of performing osteotomy at all in young children, for one of the best of reasons, that their bent knees and bones easily permit straightening by gentle, painless, prompt, and safe mechanical means'; and, with regard to adolescents, he considers that osteotomy is unjustifiable, 'unless adequate skilful instrumentation has been tried in vain'. The resort to osteotomy has frequently been defended by the assertion that previous instrumental treatment has failed; but such failure Dr. Little considers due to want of care and mechanical skill on the part of the surgeon. 'It is lamentable,' he writes, 'that surgeons have not investigated and discovered the cause of their own failure, and carefully applied instruments themselves, or superintended as well as directed their application, and, in fact, given as much care to the "setting" of a distorted as of a broken limb. The surgeon has, in fact, too often handed the case to the instrument-maker'.

The Listerian system of antiseptic surgery has divested osteotomy of so many of its dangers, and made it so brilliant an operation, that many surgeons seem to ignore the possibility of evil resulting from its performance. But yet all surgeons, as Dr. Little remarks, 'do not speak of osteotomy for in-knee with equal *couleur de rose*'.

The advocates of osteotomy have been foremost in asserting that the chief anatomical cause of the deformity is enlargement of the internal condyle of the femur. Dr. Little urges that the shape of the joint is produced by pressure upon the outer parts of the articulation. Without entering further into this controversy, we may say that, to support the theory of enlarged growth of the internal condyle, its advocates have assumed that rickets is the usual, or even the constant, cause of this supposed overgrowth.

Dr. Little has brought forward abundant evidence to prove that a large number, or the majority, of cases of in-knee, occur quite independently of rickets. Dr. Little states that congenital in-knee, a rare affection, is commonly rachitic, but non-congenital cases are usually atonic. They may, however, arise from accident, from muscular error, from over use, from rachitis, or from rheumatic, strumous, or traumatic knee affections.

'Simple in-knee from weakness attacks tall children, and does not lead to shortening of their stature. Rickety genu valgum is met with only in individuals stunted from rickets, *i.e.*, shortened, more or less, according to the intensity of that disease.'

'Simple or weak in-knee occurs independently of the presence of signs of rickets. Rickety in-knee is accompanied with constitutional and local signs of rickets elsewhere; rachitic bone-curvatures, for example, rickety teeth, rickety face and skull, restricted growth.'

This subject of the origin of genu valgum is well argued by Dr. Little, and his remarks are full of practical facts, which show that the assertion that rickets is the constant cause of genu valgum, is not tenable. The details of treatment by gentle means are given in this volume, and many other points in connection with the deformity are discussed. In urging the beneficial effects of treatment by means of splints or irons, the author refers to the lectures upon

the subject which he published in the *Lancet* in 1842-3, and adds that, 'notwithstanding the publication of these experiences a generation ago, a justly distinguished surgeon has written, as to this matter, that "he had heard it said that cases could be cured by mechanical means, but he had had no experience of it"'. It is scarcely necessary to add that Dr. Little admits the necessity of osteotomy in some old standing cases in adults, if the deformity is to be cured.

E. NOBLE SMITH.

Lehrbuch der Krankheiten der Peripheren Nerven und des Sympathicus. Von Dr. O. Seeligmüller. 8vo. Pp. 398. Braunschweig: Wreden. 1882.

THIS work, besides giving an excellent account of the diseases of the peripheral nerves, which extends over 250 pages, contains an useful chapter on the general therapeutics of nervous diseases, and deals with the so-called diseases of the sympathetic. Under the last heading are included, besides the vague symptoms of headache, abdominal neuralgia, and the like, well marked types like exophthalmic goître, migraine, angina pectoris, facial hemiatrophy, herpes, together with vaso-motor disturbances. The author, however, does not classify these 'membra disjecta' under such a heading with any preconceived theory as to their still obscure pathogeny, but rather as a matter of convenience.

The diseases of peripheral nerves include the 'anatomical' and 'functional' forms. Here, again, the classification must be accepted with reserve. For instance, among 'functional' paralyses we find facial, saturnine, and other palsies, in which the nerves are notoriously the seat of profound histological changes.

The 'general therapeutics', though given concisely, are described sufficiently clearly as to be of practical service. The physical agents, electricity and heat, gymnastics, massage, and hydrotherapy are allowed the prominent position they occupy in the treatment of nervous diseases.

The author had a difficult task before him. The subject he had to treat with in the space above mentioned would, in the hands of a mere compiler, have become a bare nomenclature devoid of life and interest. Dr. Seeligmüller has known how to infuse both into his pages without sacrificing any point of importance to the undue amplification of special headings. Everywhere we find the traces of the careful and experienced observer, as well as of the informed writer. Though here and there he expresses himself in a way which does not altogether agree with our views, yet the points where this happens are of secondary importance only. It would be as useless to enter here into controversies upon, or detailed criticisms of, these few points, as it is impossible to praise individually the many excellencies of the work.

Dr. Seeligmüller's style is clear, and the book well got up—two important recommendations in the eyes of the English reader. The illustrations, about sixty in number, might, we think, have better been made to illustrate various forms of paralyses, etc., rather than the now hackneyed electrical instruments and 'motor points'. Most readers of this volume will surely be in possession of one of the numerous illustrated treatises of electro-therapeutics now in existence. On the other hand, a good picture will do more to make clear the deformity characteristic of paralysis of the serratus magnus, for instance, than pages of description.

We recommend Dr. Seeligmüller's book as a safe guide and pleasant companion to all who wish to improve their knowledge of the subject now before us.

A. DE WATTEVILLE.

Ueber Lungen-Syphilis. Erfahrungen aus der Praxis. Von Dr. F. W. T. PANCRITIUS. Pp. 295. Berlin, 1881.

THIS monograph deals with the subject of syphilitic disease of the lungs, chiefly from a clinical point of view, and is based upon a large number of cases which have been treated by the author, a general practitioner in Berlin, in his private practice.

The first part of the work contains sections on the history, etiology, pathology, symptoms, diagnosis, prognosis, and treatment of syphilitic affections of the lung, together with a copious bibliography and quotations from the writings of many of those who have written on the subject.

Dr. Pancritius defines syphilitic pneumonia to be a disease which is characterised by hyperplasia of the interalveolar and peribronchial connective tissue, and which only secondarily and at a later period involves the parenchyma of the lung, as the process spreads outwards from the hilus which is the starting-point of the morbid change. The physical signs are thus at first confined to the corresponding middle portion of the chest, and this localisation of the disease at an early stage is considered to be a valuable diagnostic sign. The course of the affection is divided into two stages—an active or irritative, corresponding to the period of cell-proliferation and growth; and an obstructive or passive stage during which the newly formed tissue undergoes degeneration and cirrhosis. The disease usually runs an apyretic course, and the right lung is more frequently affected than the left.

The second and larger portion of the book is occupied by full reports of a hundred and five cases, in which syphilitic disease of the lungs was diagnosed. In seventy-six of these, the right lung only, and in eighteen the left only, suffered; whilst in the remaining eleven instances both organs were affected. Sixty of the patients recovered or improved under treatment, and forty-five died. In twenty-eight of the fatal cases, no examination after death was made, but in seventeen the *post mortem* appearances are recorded.

The author has evidently spared no pains in the preparation of his work; and, though there may be difference of opinion as to the nature of the lung-affection in some of the cases, there can be none with regard to the care and minuteness with which the reports are drawn up, and the thoroughness with which the literature of the subject has been investigated.

ARTHUR COOPER.

Das Blasenepithel bei Verschiedenen Füllungszuständen der Blase. Von Dr. B. LONDON. Aus der Physiologischen Institut zu Leipzig. 1881.

On the Epithelium of the Urinary Bladder in the Various States of Repletion. By Dr. B. LONDON. 1881.

THE influence of dilatation of the urinary bladder on absorption by its mucous membrane has received a good deal of attention, both by surgeons and physicians. It is obvious that the variation in thickness of the epithelium lining the mucous membrane is of importance as regards the greater or lesser facility with which absorption is carried on,

since all matter to be absorbed by the mucous membrane must necessarily traverse the epithelium.

That the epithelium, as a whole, is capable of change, owing to a variation in the state of dilatation or contraction of the organ, and that, under these conditions, the shape of the individual epithelial cells undergoes marked alterations, has been proved, some years ago, by Dr. Klein, with regard to the epithelium covering the pulmonary pleura, the epithelium lining the bronchial mucous membrane, and the stratified epithelium lining the mucous membrane of the urinary bladder. (See *Lymphat. of the Lung*, 1875; Structure of cells in *Quarterly Jour. of Microscop. Science*, April 1879.)

Dr. London of Carlsbad now furnishes us with precise data as to the change in thickness of the epithelium in various states of repletion of the bladder. He finds, from exact measurements of the thickness of the epithelium of the hardened mucous membrane preserved in definite states of repletion, that the thickness of the epithelium decreases from the moderate to the highest degree of repletion in the same manner as the surface of the mucous membrane increases in extent. A further important result is the fact that, in this diminution of thickness, the volume of the individual cells composing the epithelium remains always the same, but, of course, the cells undergo a change in shape. Since, at a high degree of repletion of the bladder, the same number of cells has to cover a greatly increased surface, the individual cells become markedly flattened and broader, without there ever occurring any discontinuity between them. E. KLEIN.

On Diet and Regimen in Sickness and Health, and on the Inter-dependence and Prevention of Diseases, and the Diminution of their Fatality. Seventh edition, revised and enlarged. By HORACE DOBELL, M.D., Consulting-Physician (late Senior-Physician) to the Royal Hospital for Diseases of the Chest; Consulting-Physician (late Physician) to the Royal Albert Orphan Asylum, etc. London: H. K. Lewis. 1882.

WHEN a work has passed through seven editions it needs no detailed notice. We have no hesitation in saying that the present volume is quite equal to its predecessors. We have read it carefully and attentively, and not without interest. Probably the best chapter in the book is the collection of receipts. The substitute for lobster salad made by cutting turbot into slips and colouring the outside with beetroot is excellent. The extracts from the works of others are of value, and will be read with pleasure. The author is to be congratulated on the care displayed in their selection. The volume is handsomely bound and printed on good paper.

W. MURRELL, M.D.

Statistical Tables of the Patients Under Treatment in the Wards of St. Bartholomew's Hospital during 1880. London, 1881.

University College Hospital. Report of the Surgical Registrar, and of the Resident Medical Officer, for 1880. London, 1881.

WHEN the 'Association of Registrars of the Metropolitan Hospitals' was founded, in 1880, it passed several resolutions. One of these pledged it, 'if possible, to compile, on the same model, a combined index of cases admitted into the metropolitan hospitals during the year'. The two reports before us are the first efforts to fulfil this resolution which we have met with. They differ widely between themselves, for, while St. Bartholomew's Hospital professes to supply merely statistical tables, the volume which emanates from University College Hospital gives us a genuine insight into the work of the institution. In both instances, the basis of the report is a table of diseases classified according to their nature, and showing in three columns the total number of cases, the number discharged, and the number dying of each disease; the sexes are distinguished in the two latter columns. In the Report of the Surgical Registrar at the smaller hospital, this table serves the purpose of an index to a copious 'Appendix', which forms the bulk of the volume. This appendix consists of abstracts of all the more important cases; where a *post mortem* examination was performed, the clinical and anatomical observations are placed side by side, in parallel columns. Some of these abstracts are of great interest, while others appear to us hardly worthy of the labour which must have been expended on them; for instance, the details of the cases of cellulitis are not of much interest, and are sometimes hardly intelligible. Mr. Boyd has supplied eight sub-tables, all of which are valuable as contributions to the statistics of surgery; this remark applies especially to the tables dealing with Stricture, with Pyæmia and the allied conditions, and with the Amputations; the latter table includes a summary of all the amputations for the ten years 1871-1880. The registrars at St. Bartholomew's Hospital furnish a similar table, but it is of less value, owing to their having failed to distinguish, in the amputations of the thigh, the part of the limb at which the operation was performed. It is generally acknowledged that the mortality varies greatly, according as the limb is removed in the upper, middle, or lower thirds of the thigh. The appendices to the tables, compiled by the medical and surgical registrars at St. Bartholomew's, are very short, and deal with but few cases; on the other hand, the main table is fuller, inasmuch as it specifies the ages of the patients in eight periods, viz., under 5, from 5 to 10, then in decades to 60, and, lastly, over 60. In the case of some diseases, this is of great importance; for instance, we see from it that, of the 91 cases of enteric fever, but 2 occurred under five years of age, and that one of these was fatal; and that of the 25 cases of diphtheria, 15 occurred under 5 years, and that of these 12 were fatal. Tracheotomy was performed 13 times in this disease, with 4 recoveries. Dr. Champneys has much facilitated reference by making use of thick type in recording the fatal cases. Dr. Bond, at University College Hospital presents us with an appendix dealing with the cases of New Growths, in which the *post mortem* appearances are rather fully given, and also a table of the cases of Leucocythæmia.

DAWSON WILLIAMS, M.D.

Congrès International de Laryngologie. Première Session. Compte-Rendu. Publié par Charles Labus. Milan: Septembre 1880.

THIS volume, recently published by the President of the International Congress of Laryngology, Dr. Charles Labus, from the report prepared by the Secretary, M. Frua, furnishes a full account of the papers that were read, and the discussions that ensued at the First Session of the International Laryngological Congress, held at Milan in September

1880. The Congress lasted five days, and numbered 122 members, of whom forty-four were present. Among the latter may be mentioned the names of Drs. Krishaber, Stoerk, Schnitzler, Massei, Fournié, and Labus.

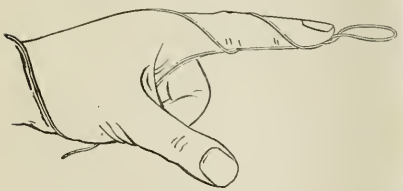
A considerable quantity of work was got through, the number of papers amounting to over forty. Abstracts of those of chief interest have already been given in the LONDON MEDICAL RECORD; but there are several others which would repay perusal by those engaged in the specialty. Not the least interesting part of the volume consists in the report of the discussions which followed the reading of the various papers; as from these we have the opportunity of learning the opinions and experiences of some of the chief authorities on the subject, as well as those of the author of the paper. The instruments and apparatus, amongst which may be specially mentioned the mannikin of Dr. Labus for practising operations on the larynx, that were displayed at the Congress, are also described. The volume consists of 225 pages, and is published at the moderate price of ten francs.

NEW INVENTION.

SEARCHING FOR STONES.

Dr. F. N. Otis, in reporting to the Academy of Medicine, April 1882, a case of encysted stone removed by medium lithotomy, suggested the following simple device for lengthening the finger and thus facilitating the search for stones so situated as to be beyond the reach secured by the unaided finger.

It consists of copper wire so attached to the forefinger of the operator as to form a loop at its extremity—an increased sweep of an inch or more is



thus obtained, and the tactile sense with the attachment is very little inferior to that of the finger without it. The wire is rendered secure by simply twisting it about the finger, hand, and wrist.

The applicability of this device to those cases in which the stone is sacculated or immured, and at a distance from the vesical orifice is at once evident. More thorough exploration in cases of suspected tumours, etc., is thus made possible. The same appliance promises, also, to prove of service in removing foreign bodies from the throat as well as in explorations of the uterus, and in detaching and removing growths from the interior of that organ.

WARNER'S PARVULES.

We have received from Messrs. W. R. Warner and Co. of Philadelphia specimens of their parvules, a term applied to a new class of remedies in the form of minute pills, containing minimum doses, for frequent repetition in cases of children and adults. Dr. Sidney Ringer, in his recent work on *Therapeutics*, lays great stress on the efficacy of minimum doses of corrosive sublimate; and a large experience of professional men endorses the certain action of parvules of podophylline, in constipation due to a torpid action of the liver with deficient biliary secretion. Drs. Peter of Paris, Bartholow, Dessan, and others cite numerous cases of disease wherein they brought about a desired result by the adoption of minimum doses. For this class of treatment, the parvules are especially adapted, upwards of forty varieties being prepared in this form.

Messrs. Warner have also submitted to us some most convenient and neatly got-up physicians' pocket-cases, containing a collection of ten and twenty different sorts of the parvules in the ordinary sized bottles, making, in the case of the larger one, a complete little pocket compendium of pharmacy, enabling him to administer a dose on the instant to his patient, and so avoiding the time lost while waiting for the preparation of prescriptions. Messrs. Newbery and Sons are the London agents for both parvules and pocket-cases.

DIETETIC NOVELTY.

SPANISH LIGHT WINES.

It is now tolerably certain that Spanish light wines will compete with French productions in the future in the English market. Our present remarks are intended to apply to wines of the sherry character, for which the Iberian peninsula has, and we believe must, stand pre-eminent. It is quite evident that, guided in a great measure by the advice of the medical profession, a taste is daily gaining strength in favour of light over the heavy alcoholised wines that pleased the palates of our fathers. 'Natural' sherries, so named because they are presumed to be the virgin production of the grape, appear to be the 'coming' feature from the Spanish vineyards; and if we exclude the 'high-class' sherries, for which there is comparatively little demand, the natural sherries are doubtless far more beneficial to the system than the highly brandied liquids we have for many years been obliged to accept as sherry. The wine now under consideration, 'Virgin Montilla' the name that its importers, the Cadiz Wine Company, of Duke Street, St. James's, have given to it, is well worthy of attention. As a delicate light wine for luncheon, or even dinner, it will doubtless find numerous admirers, and to delicate constitutions, to whom the ordinary sherries are unsuitable, it is decidedly preferable. It contains but about 26 per cent. of alcohol, is clean on the palate, pleasing to the taste, and may be pronounced a valuable dietetic. Its price is 21s. per dozen.

OUR INTENDED DIARY.

PUBLISHERS' NOTICE.

As applications and inquiries are now constantly reaching us from the bookselling trade and private persons in various parts of the country and abroad, as to their eligibility to participate in the gratuitous distribution of our Diary for the next and succeeding years, we consider it necessary to make known the terms on which it will be published.

Those who pay their subscriptions direct to our publishers, will experience no difficulty in the matter; the Diary, so soon as published, will be forwarded to them free, and all persons who may forward their subscriptions to us on or before the 1st December will be entitled to the work for the year 1883; but we cannot guarantee it to those who do not subscribe by that date. Still, every person sending in his subscription for a year in advance will be entitled to *one* Diary; but if a subscription be not paid in before January 1883, the sender will only receive a Diary for the year 1884. Large numbers of the LONDON MEDICAL RECORD are ordered monthly by booksellers throughout the country, and we cannot be expected to know if these are sold consecutively to the same persons, neither can we undertake to look upon booksellers who may order, say one dozen copies per month, as annual subscribers to the extent of their monthly purchases. The onus of proving to our satisfaction that this or that purchaser of the journal is a subscriber in the strict sense of the term must rest with the purchaser himself. We cannot, however, entertain applications of this character direct from persons who purchase it month by month from the trade. At the same time, it is our wish and intention that every individual who has taken the journal in this manner for *a year preceding* the publication of the Diary should have a copy of it sent to him free. To carry out this intention, it will be necessary that applications be made to us *through the booksellers* who have supplied the work, and on receipt of satisfactory vouchers from them, and the names of the parties to whom the work has been supplied, a copy of the Diary will be sent to each individual direct. With reference to future years, in relation to those who prefer ordering through their booksellers, the plan we propose to lay down, and which will not only avoid after-complications, but give less trouble to the tradesmen supplying the journal, is this. On the application of any person to subscribe to the LONDON MEDICAL RECORD through a bookseller, such bookseller should request him to pay the amount of the annual subscription at the time of application, and to intimate the payment to our publishers, when the name of the recipient will be at once entered upon our books as an annual subscriber, and all after-difficulties avoided; the bookseller of course remitting the amount at the time of such intimation. It is absolutely necessary that a clearly-defined plan should be established. The work in question will cost us a large sum in the preparation, and we cannot be expected to distribute it broadcast to every person who purchases an occasional number of the LONDON MEDICAL RECORD through a local bookseller.

MISCELLANY.

AN ETHNOLOGICAL MUSEUM is now thoroughly organised at the Trocadero in Paris. It possesses 44,000 ethnological specimens, of which 14,000 are classed. The classification is being made under the superintendence of Drs. Hamy and Gaudren, and will soon be completed. Owing to the efforts of M. Jules Ferry, the Ethnological Museum was, two years ago, put down in the Budget for 20,000 francs (£800).

COLLEGE FOR MEDICAL PRACTITIONERS.—A college has been inaugurated at St. Louis to teach medical practitioners, by practical instruction, the special branches of medicine and surgery. There will be twelve departments, so arranged that special courses may be taken with as little loss of time as possible. The following gentlemen have been elected to fill a part of the departments:—T. F. Rumbold, M.D.; E. Borck, M.D.; W. Hutson Ford, M.D.; W. Dickinson, M.D.; W. B. Outten, M.D.; Colonel F. T. Ledergerber, Attorney-at-Law; C. H. Hughes, M.D.; and other gentlemen, who also have had especial advantages in their departments, will be added. Particulars may be had of the dean, Dr. T. F. Rumbold, 1,225, Washington Avenue; or of the Secretary, Dr. E. Borck, N.E. corner of Fourth and Market Streets, St. Louis.

A NEW APPARATUS FOR TAKING TRACINGS.—M. D'Arsonval has invented an apparatus for taking tracings at a distance free from rubbing. The smoke or soot is stored in an India-rubber bag, or produced by a current of air issuing from a gasometer, or a bag full of gas. Tinder, or the leaves of certain plants, answer equally well, likewise the smoke of a lamp or a smoky candle. The registering stylus is hollow, and the smoke passes along the rotatory axis. In another kind, the stylus moves along with the tracing paper, and the jet of smoke is stationary. M. D'Arsonval made a communication to the Biological Society, in which he says that the instrument can be varied in numerous ways.

ACTION OF THE ELECTRO-MAGNET ON FERMENTATION.—M. D'Arsonval has observed that, if a strong solution of cane-sugar, containing yeast, be placed between the two poles of an electro-magnet, the fermentation is considerably delayed. The intestinal ferment has the same effect as yeast. Other reactions, purely chemical, are either arrested or effected more slowly. M. D'Arsonval will make some further communications concerning these phenomena, showing how those produced by treating hysterical patients by electricity and magnetism can be explained.

DISINFECTION OF URINE.—In the *Medical Annals*, Dr. E. C. Curtis states that hydrate of chloral has the property of disinfecting urine. In August last, he received a specimen of urine, four ounces, containing five grains of chloral to the ounce. No special care was taken to facilitate its preservation. It was simply corked, and was several times opened. Some months afterwards, it was perfectly transparent, of a clear amber colour. A slight semi-flocculent deposit covered the bottom of the vial. It was of specific gravity 1,015, acid; albumen, one-and-a-fourth. The preservation of the albumen was a marked test. On microscopic examination, the epithelial cells were as perfect as in recent urine. No casts were seen. The specimen seemed to be quite the same as when freshly voided.

MR. A. W. HOOD, member of the Rochester Naturalists' Club, has been able to add to the Jermyn Street Museum of Geology two specimens of polyzoa new to Britain, for which he has received the special thanks of the Lords of the Committee of Privy Council on Education on behalf of Her Majesty's Government. They were obtained from the Borstal chalk.

QUININE FROM THE WEST INDIES.—The efforts of the Government of Jamaica to introduce the cultivation of the cinchona tree into that island promise to be as successful as those of the Government of India, and may be expected in time to contribute powerfully to lower the high price of that invaluable drug quinine. Governor Sir Andrew Musgrave, in his report just published, directs attention to the fact that this year the article, which used to be known in commerce as Jesuits' or 'Peruvian' bark, appears for the first time in the list of West Indian exports. The bark sent away during the year, amounting to 23,981 lbs., of the stated value of £7,202, was chiefly the produce of the Government plantations. Sir A. Musgrave observes that a great impetus has been given to the cultivation of this valuable tree by the success attending the experiment undertaken by Government, and it may be confidently hoped that in the course of a few years the export of cinchona bark will rank high on the list of exports. It is added

that there is a large quantity of land available which is well suited for the growth of cinchona, for the acquisition of which, on liberal terms, facilities have recently been offered by public notification.

FELLOWSHIPS FOR THE ENCOURAGEMENT OF STUDY AND RESEARCH.—An anonymous donor has placed at the disposal of the Senatus Academicus of Edinburgh University a sum of money to be applied by them in providing 'Elective Fellowships for the Encouragement of Study and Research'. There will be four fellowships (open to any graduate of a Scottish University), of the value of £100 each for one year, but renewable for one or two further years, at the pleasure of the Senatus Academicus; and the regulations are as follow.—'1. There will be no examinations for election to these fellowships, but Fellows will be elected by the Senatus Academicus after consideration of the qualifications and circumstances of the applicants. 2. These fellowships are open to any graduate of a Scottish University not being more than thirty years of age at the date of application, and provided that he be not an assistant to any professor, or an examiner in any department. 3. The fellowships are intended for persons having attained some proficiency in, and who are desirous to prosecute, unprofessional study and research in one of the following subjects: i. Mathematics (pure or applied), or experimental physics; ii. Chemistry; iii. Biology; iv. Mental philosophy; v. History, or the history of literature. 4. Persons desiring to hold one of these fellowships should address an application to the Secretary of the Senatus Academicus, to be received by him on or before the 1st October 1882,' etc.

THE CONSTITUENTS OF TOBACCO-SMOKE.—A series of experiments has been recently conducted by Herr Kissling of Bremen with the view of ascertaining the proportions of nicotine and other poisonous substances in the smoke of cigars. In his paper, which is published in *Dingler's Polytechnisches Journal*, he specifies, as strongly poisonous constituents, carbonic oxide, sulphuretted hydrogen, prussic acid, picoline-bases, and nicotine. The first three occur, however, in such small proportion, and their volatility is so great, that their share in the action of tobacco-smoke on the system may be neglected. The picoline-bases, too, are present in comparatively small quantity; so that the poisonous character of the smoke may be almost exclusively attributed to the large proportion of nicotine present. Only a small part of the nicotine in a cigar is destroyed by the process of smoking, and a relatively large portion passes off with the smoke. The proportion of nicotine in the smoke depends, of course, essentially on the kind of tobacco; but the relative amount of nicotine which passes from a cigar into smoke depends chiefly on how far the cigar has been smoked, as the nicotine-content of the unsmoked part of a cigar is in inverse ratio to the size of this part, *i.e.*, more nicotine, the shorter the part. Evidently, in a burning cigar, the slowly-advancing zone of glow drives before it the distillable matters, so that in the yet unburnt portion a constant accumulation of these takes place. It would appear that in the case of cigars that are poor in nicotine, more of this substance relatively passes into smoke than in the case of cigars with much nicotine; also that nicotine, notwithstanding its high boiling point, has remarkable volatility.

RESEARCHES ON LUNG-DISEASE. — M. Gibouy has lately experimented with four young rabbits of the same litter, and born of healthy parents. Two of them were kept 105 days in a large wooden case, with side gratings, into which was introduced daily a quantity (about 20,000 cubic centimètres) of air expired by animals in a consumptive state. This operation was performed at midday and in the evening, and each time the gratings were kept closed for two hours. In another quite similar case, the two other rabbits were similarly treated, except that the impure air was made to traverse in its way to the case some wadding impregnated with carbolic acid. The rabbits in the first case, before long, showed loss of appetite, intense thirst, listlessness, diarrhœa, and loss of flesh. On being killed, both were found to have tubercles in the lungs, the liver, and the kidneys, those in the lungs being the most advanced, and the upper lobes being chiefly affected. The other couple of rabbits presented nothing abnormal while alive, and no organic alteration was observed in their organs after death. They were eaten without repugnance by the author and his family. Again, observations have been recently made by MM. Gréhaut and Quinquand, both on man and the lower animals, regarding the influence of injuries of the lungs (or of the bronchiæ or the pleural envelope) on the exhalation of carbonic acid. They prove that the amount of this gas exhaled is less where such disorder exists, even where there is fever. Two explanations are conceivable; the pulmonary change might bar the elimination of carbonic acid, which, in that case, would accumulate in the blood, or the injury might have the effect of diminishing the production of carbonic acid by affecting the general nutrition. Experiment favoured the latter hypothesis.

RESEARCHES ON DEAF-MUTISM.—A discussion has lately taken place as to whether deaf-mutes taught to speak do so with the accent of their native district. M. Hément affirmed this in the French Academy, from personal observation, and noted the interesting nature of the fact (as he thinks it) of dialectal accent being hereditary. Mr. Axon has supported this view by other recorded cases, one being in an old number of the *Philosophical Transactions*—a cogenital deaf-mute, who, when a young man, gradually acquired hearing and speech after a second attack of fever, and spoke with Highland accent; another, the case of pupils in deaf and dumb schools in Spain, observed by Ticknor to speak with distinct provincial accents; a third that of a deaf-mute taught by Mr. Alley of Manchester, and found to speak with Stafford dialect. On the other hand, M. Blanchard noted the harsh and disagreeable nature of deaf mutes' speech, and thought their pronunciation had not the quality of accent. Professor Graham Bell says that in America this faulty utterance has been quite overcome; but, having examined the speech of at least 400 deaf-mutes, he has never remarked any such tendency as M. Hément affirms. In a few cases dialectal pronunciations were heard, but it always turned out that such children could talk before they became deaf. Professor Bell (in *Nature*, March 2) criticises the cases adduced. In that of the young Highlander there was probably imitation of heard speech. A large proportion of deaf-mutes, it is now known, have been able to hear in infancy, and many to speak, so it was an erroneous assumption of Ticknor that the pupils could never have heard a human sound. The youth taught by Mr. Alley became deaf at a very early age, but it is not said what age. M. Hément's data are also pronounced defective. M. Hément, further, has said he is unable to conceive how, in losing the use of speech, deaf-mutes should retain the unconscious memory of accent. Mr. F. I. Faraday (*Nature*) finds this conceivable as due to automatic activity of brain-tissue, and he cites a case in which a man, becoming deaf in one ear through typhoid fever, often seemed to hear with that ear entire sentences which had not been spoken. Turning from this, we note an interesting recent observation by Dr. Boucheron with regard to several cases of deaf-mutism in children, with accompanying giddiness, difficulty in walking, nervous cries, etc., which were treated successfully by a new method. Supposing that those troubles might be due to a compression of the acoustic nerve and the nerves of the semicircular canals (which are known to be closely concerned with bodily equilibrium), such compression being the result of vacuum existing in the cavity of the tympanum, so that the tympanic membrane is pressed in on the bones of the ear, Dr. Boucheron sought to destroy this vacuum by passing air into the cavity through the Eustachian tube. The children rapidly improved, being soon able to walk normally, regaining by degrees both hearing and speech, and improving generally in health and disposition.

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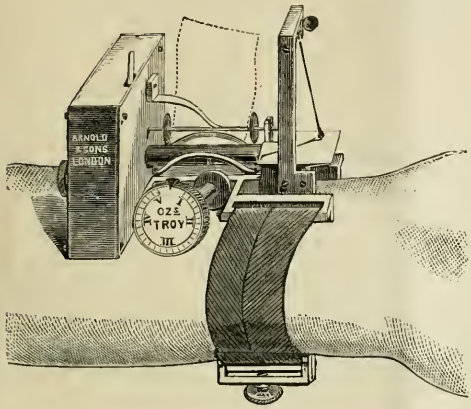
As suggested by Dr. DUDGEON.—*Vide* MED. TIMES & GAZETTE, July 2, 1881.



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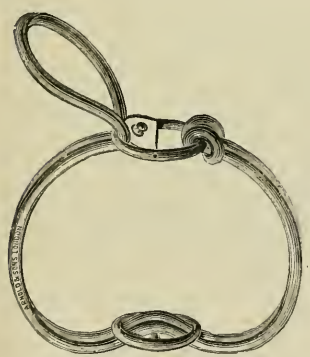

As suggested by Dr. WARD COUSINS.

Vide BRITISH MEDICAL JOURNAL, September 10th, 1881.

Extract from MEDICAL TIMES & GAZETTE, October 8th, 1881.

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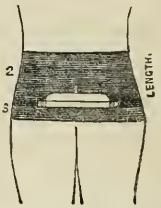

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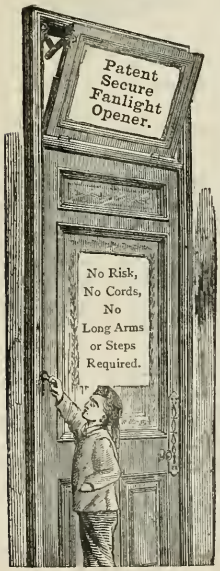

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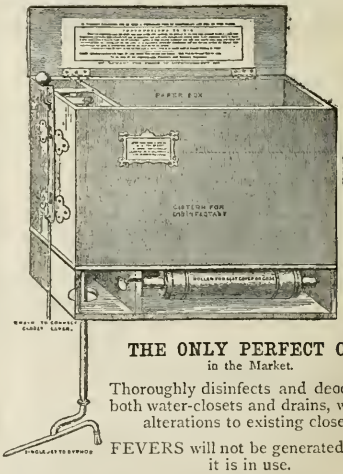

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TESTIMONIALS.

Thorpe Hamlet, Norwich, February 23rd, 1881.

SIR,—A short time since I was induced by the novelty of the title to send for a bottle of your Liebig's Extract of Meat and Malt Wine. I was perfectly acquainted with the value of the *Extractum Carnis*, and not quite a stranger to the invigorating and fortifying properties of Malt Wine, and, therefore, felt a natural curiosity to test them when combined. Men who work hard, as I do, not muscular hard work, but that which is quite as exhausting, viz., brain work, very often experience the need of, and have sometimes an almost irresistible craving for, a 'pick me up'; and very often the panacea for a time for lassitude, and that state of mind which renders work irksome, are alcoholic stimulants, the use of which must sooner or later end disastrously. The man who can furnish a remedy sure, certain, and harmless, for the lassitude which follows constant brain work, is a benefactor of his species, and may be said to have added many years of usefulness to the lives of useful men. Your extract, if a success, and when more generally known, will be used by all toilers of the mind.

Yours faithfully, O. D. RAY.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Queen's Crescent, Haverstock Hill, March 5th, 1881.

DEAR SIR,—Some time since, being greatly fatigued with over-work and long hours at business, my health (being naturally delicate) became very indifferent. I lost all energy, strength, and appetite, and was so weak as to be scarcely able to walk. As you are aware, I sent for a dozen of your Extract of Meat and Malt Wine, which, in a few days, pulled me up marvellously. Three or four glasses of it daily have quite altered and restored me to better health than ever, 'without the assistance of a doctor'. I am now giving it to my son twelve years of age, whom we have always thought consumptive, and from a puny ailing boy he seems to be fast growing into a strong healthy lad. Enclosed you have a cheque. Please send me two dozen of the 'Extract'. With thanks for your prompt attention to my last.

I am, Sir, yours truly, GEORGE A. TYLER.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Grampound, February 25th, 1881.

Mrs. Coulson thanks Mr. Coleman for the book and stamps, and she has no doubt but that 'the tonic' is a good one. Mrs. C. encloses twelve stamps for basket.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Vicarage, Kingsbridge, Devon, January 25th, 1881.

DEAR SIR,—We are ten miles from the railway, and have been snowed up, consequently the wine has only just arrived. I enclose a cheque for £2 11s. 6d. I like the wine, and will recommend it.

Mr. Coleman, Norwich. Yours faithfully, A. N. KINGSTON.

Pints, 27s. per dozen; Quarts, 50s. per dozen. Carriage paid to any Railway Station in Great Britain. Sample Bottle sent for 33 stamps.

P. O. ORDERS TO BE MADE PAYABLE TO

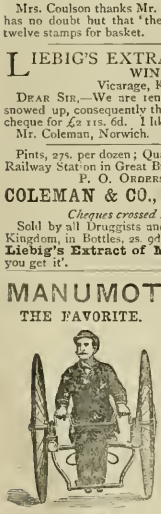
COLEMAN & CO., MUSPOLE ST., NORWICH.

Cheques crossed London and Provincial Bank.

Sold by all Druggists and Patent Medicine Vendors in the United Kingdom, in Bottles, 2s. 9d. and 4s. 6d. each. Ask for **Coleman's Liebig's Extract of Meat and Malt Wine**, and 'See that you get it'.

MANUMOTIVE TRICYCLES.

THE FAVORITE.



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'FAVORITE' TRICYCLE,

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Is especially made for persons whose Legs are weak or useless.

SIMPLE AND EASY.

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Beg to direct the attention of the Profession to their List of New Popular Effervescing and other Preparations, which are largely used.

Granular Effervescing Bismuth and Pepsine.

Granular Effervescing Bismuth, Pepsine, & Steel.

Introduced at the suggestion of the late Dr. Thos. Hawkes Tanner.

Gran. Eff. Bismuth, Pepsine, and Quinine.

Gran. Eff. Bismuth, Pepsine, and Strychnine.

Gran. Eff. Iron and Arsenic. **Pepsine Porci.**

Pepsine Wine. **Pepsine Pills.** **Pepsine Lozenges.**

Phosphorised Cod-Liver Oil. THE ORIGINAL PREP.

In 1853, Dr. Glover prescribed Phosphorised Cod-Liver Oil (*Lancet* Jan. 1, 1853), 27 years ago and more. *Beware of spurious imitations.*

PRESERVED RIPE INDIAN BAEL FRUIT.

Recommended by Sir Joseph Fayrer, M.D.

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GOLD MEDAL, PARIS EXHIBITION, 1878.

KINAHAN'S LL WHISKY.

PURE, MILD AND MELLOW. DELICIOUS AND MOST WHOLESOME.

THE CREAM OF OLD IRISH WHISKIES

Dr. Hassall says:—"Soft and Mellow, Pure, well Matured, and of very excellent quality."

The Gold Medal, Dublin Exhibition, 1865.

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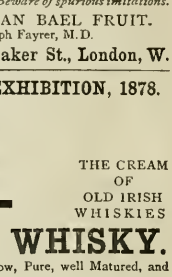

With removable leather hood. Has more advantages than Cab or Brougham; no oscillation or knee motion; one-third the weight and cost; any size or colour. See Letters in *Brit. Med. Jour.*, 1880 and 1881; *The Lancet*, Nov. 12, 1881.—Particulars and Drawings from Oldswinford Carriage Works, Stourbridge.

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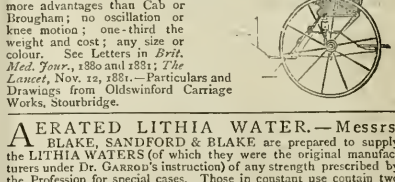
'The oldest and most valuable spring known.'



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NEW IMPROVEMENTS IN PHARMACY.

THE BURROUGHS INHALER.

'Is an ingenious and convenient device for inhaling chloride of ammonia fumes; by its use the chloride of ammonium is brought in more intimate contact with the mucous surfaces of the passages of the nose and throat than by any other form of inhaler.'—THE MEDICAL PRESS AND CIRCULAR Reports.

For full Notes and Reports see front pages of THE LANCET, May 6th.

KEPLER EXTRACT OF MALT.

THE LANCET says of the Kepler Extract of Malt: 'The best known, and in this country the largest used Extract of Malt. It is as distinct an advance in therapeutics as was the introduction of cod-liver oil. It is one of our best remedies for atonic dyspepsia, and is undoubtedly useful in consumption and other wasting diseases.' And further adds, 'It is very good, and may be used with confidence.'

For wasting Diseases.

For full Notes and Reports see front pages of THE LANCET, May 6th.

McK. & R. CAPSULED PILLS.

An important improvement has been made, which now renders the most offensive and repulsive drugs easy of administration. This improvement consists in perfectly sealing with a thin transparent capsule of gelatine all drugs such as quinine, morphia, rhubarb, etc., also the various pills and powders of the pharmacopœia. These capsules are of an ovoid shape, and it has been demonstrated beyond question that when ordinary coated pills are rejected by patients there is not the slightest difficulty in administering this new form.

For full Notes and Reports see front pages of THE LANCET, May 6th.

KEPLER COD-LIVER OIL WITH EXTRACT OF MALT.

This is an emulsified combination of the purest fresh Norwegian Cod Liver Oil with 50 per cent. of Extract of Malt (Kepler).

So combined, the oil is subdivided into minute particles which can be seen under the microscope to be as fine as the granules of milk; and much finer than any that can be obtained by any emulsion with gums. On the fineness of the emulsion depends the digestibility of the oil. 'The digestive change undergone by fatty matters in the small intestine consists mainly in their reduction into a state of emulsion, or division into infinitely minute particles.'

For full Notes and Reports see front pages of THE LANCET, May 6th.

THE BURROUGHS BEEF AND IRON WINE.

'This is a really valuable preparation, and, as far as we know, a novelty. It contains beef juice and citrate of iron in solution in wine, and is therefore a very powerful and rapidly-acting tonic. Children, as well as adults, take it easily; and, as its taste is by no means unpleasant, it can hardly fail to attain great popularity. In many cases of scrofula and rickets we have given it with the most gratifying results.'—THE LANCET Report.

For full Notes and Reports see front pages of THE LANCET, May 6th.

LAWTON'S ABSORBENT COTTON.

'Has been pronounced by some of our most eminent surgeons the very best absorbent for taking up discharges; it is very fine and soft, and acts instantly.'—THE MEDICAL PRESS AND CIRCULAR.

For full Notes and Reports see front pages of THE LANCET, May 6th.

WYETH'S COMPRESSED TABLETS.

EXACT SIZE OF TABLET

'Are a great improvement on the hard, unpalatable lozenges which have so long done duty in the Pharmacopœia. The Chlorate of Potash and Chlorate of Potash and Borax will be found useful in throat affections, whilst the Bicarbonate of Potash and Bicarbonate of Soda Tablets will prove efficacious in dyspepsia. The Soda Mint, or Neutralising Tablets, will earn the gratitude of many a flatulent dyspeptic.'—LANCET.

For full Notes and Reports see front pages of THE LANCET, May 6th.

HAZELINE.

THE MEDICAL PRESS AND CIRCULAR reports:—'Hazeline is a valuable astringent remedy, wonderfully efficacious in checking *internal* or *external hæmorrhages*, and for *allaying inflammation*. It is particularly valuable in the treatment of *bleeding piles*, and as a *surgical dressing* it deserves attention.'

For full Notes and Reports see front pages of THE LANCET, May 6th.

WYETH'S SOLUBLE COMPRESSED HYPODERMIC TABLETS.

The following formulæ and combinations embrace all those in general request. Others will be added as the demands of the profession warrant.

We claim for Wyeth's Hypodermic Tablets:

ABSOLUTE ACCURACY OF DOSE.
READY AND ENTIRE SOLUBILITY.
PERFECT PRESERVATION OF THE DRUG.

Their convenience and utility will at once be apparent on examination.

Morphiæ Sulphas .... 1-3 grain.	Morphiæ Sulphas .... 1-8 grain.
Morphiæ Sulphas .... 1-4 grain.	Atropiæ Sulphas ....1-200 grain.
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Morphiæ Sulphas .... 1 8 grain.	Atropiæ Sulphas ....1-250 grain.
Morphiæ Sulphas .. 1-12 grain.	Atropiæ Sulphas .. . 1 60 grain.
Morphiæ Sulphas .... 1 3 grain.	Atropiæ Sulphas .. 1-100 grain.
Atropiæ Sulphas ....1-120 grain.	Atropiæ Sulphas .. 1-150 grain.
Morphiæ Sulphas .... 1-4 grain.	Strychniæ Sulphas .. 1-60 grain.
Atropiæ Sulphas ..1-150 grain.	Strychniæ Sulphas 1 100 grain.
Morphiæ Sulphas .... 1-6 grain.	Strychniæ Sulphas ..1-150 grain.
Atropiæ Sulphas ....1-180 grain	

For full Notes and Reports see front pages of THE LANCET, May 6th.

WYETH'S DIALYSED IRON.

1. It is easily administered, the dose being very small.
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3. It does not irritate the stomach.
4. It has no effect on the bowels, producing neither constipation nor diarrhœa.
5. It does not blacken the teeth.

In ordering please specify Per. Wyeth 3 oz. with Dropper.

NOTE.

All the articles mentioned on this page may be obtained from respectable Dispensing Chemists and Wholesale Druggists in every part of the world, or from the European Depôt of Burroughs, Wellcome, & Co., 7, Snow Hill, London, E.C. Our New Formulæ Book and Trial Specimens of any of our Preparations will be sent to any Member of the Profession upon request.

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'THE QUEEN OF TABLE WATERS.'

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'*Apollinaris Water, by its absolute purity, affords complete guarantee against the dangers of zymotic disease incidental to ordinary drinking-water. Its sparkling and refreshing character renders quite unnecessary the introduction of ice into it. There is, of course, no objection to icing Apollinaris, as champagne is iced, by the external application of cold until its temperature is brought down in hot weather to a pleasant coolness. So treated, it is a beverage as refreshing and agreeable as it is pure and wholesome.*

'EARL SPENCER, K.G., *the President of the International Medical Exhibition, at the great Medical Congress in London recently, referred to Apollinaris in his opening address as a typical beverage approved by the Faculty. This approval is ratified by the unerring tastes of the cultivated populations of the world. The desiderata of original purity laid down by the* RIGHT HON. LYON PLAYFAIR *as the indispensable conditions for water, which can never be freed from sewage pollutions when once they have been allowed to pass into it, are amply fulfilled by Apollinaris.*'

SANITARY RECORD, March 1882.

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"THE RICHEST NATURAL APERIENT WATER."
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"Certain and Painless, Soft and Mild."
Prof. V. GARTNER, STUTTGART.

"OF GREAT USE IN HABITUAL CONSTIPATION."
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"Has remarkable success in all diseases for which aperient waters are used."
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"Prompt, certain, and without inconvenience."
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Hunyadi János — In Bilious Attacks and Sick Headaches.
"Favours the secretion and excretion of bile, and removes congestive and inflammatory conditions of the liver."
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"I have used the HUNYADI JÁNOS WATER in many cases of the rheumatic and gouty diathesis with very marked benefit. In cases accompanied with great obesity I prefer it to any other laxative."
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"I prefer this to any and every other."
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Hunyadi János — Against Evil Consequences of Indiscretion in Diet.
"Has invariably good and prompt success; a most valuable item in the balneological treasury." Professor Virchow, *Berlin.*

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"New York Medical Journal," *August* 1880, Dr. F. Weir, *in Lecture delivered to the College of Physicians and Surgeons, New York.*

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Of all Chemists, 1s. 6d. and 2s. per bottle. Ordinary Dose, a Wineglassful.
It is most efficacious when taken in the morning fasting, warmed to a temperature not below 60°, or when an equal quantity of hot water is added to it.

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